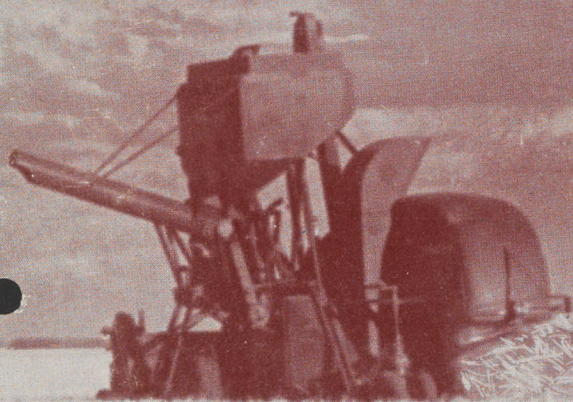


Junior Cooperative

VARIETY TESTS

1951



Published by
**SASKATCHEWAN CO-OPERATIVE
PRODUCERS LIMITED**

HEAD OFFICE, REGINA

JUNIOR CO-OPERATIVE

Variety Tests

WHEAT, OATS, BARLEY and
CROP COMPARISON

1951



PUBLISHED BY
SASKATCHEWAN CO-OPERATIVE PRODUCERS LIMITED
MARCH, 1952

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Foreword

By the President of Saskatchewan Co-operative Producers Limited

In some respects the past two years have been disappointing ones for Saskatchewan farmers. In 1950, with an above average crop in prospect, severe frost occurred, reducing farm income by millions of dollars in a period of two or three days. In 1951, with forecasts indicating a record cereal production, disaster struck again in the form of wet weather and snow which delayed harvesting operations. This time the loss may even exceed that of the previous year.

Even in this age of miracles it would be unreasonable to anticipate the introduction of grain varieties which would escape the hazards which caused our difficulties in the past two years. Nevertheless, scientists are giving constant attention to the job of breeding varieties that will mature earlier, that will have stronger straw and less tendency to shatter, that will have a long after-ripening dormancy so as to resist sprouting in the swath to a greater degree, that will be more disease resistant, but will retain or improve upon the high yields, the excellent quality and the drought resistance of those we are growing at the present time.

For the past seventeen years the Saskatchewan Wheat Pool has given assistance in this work by conducting field tests with new varieties which appear promising for use under Saskatchewan conditions. Associated with us in these projects have been young farm men and women in all districts of the province who plant and supervise the individual tests. We are deeply indebted to our Junior Co-operators and I take this opportunity of expressing the thanks of the organization for the excellent job they have done.

The widespread network of tests carried out each year provides information from all areas of the province, and helps to determine the zones to which a new variety may be adapted. By providing a service that will help to bring the best new varieties into commercial production more quickly the Wheat Pool organization hopes to play a part in continually reducing the hazards of production which face our farmers.

J. H. WESSON

Introduction

DURING 1951 the Saskatchewan Wheat Pool conducted a program of 320 Junior Co-operative Variety Tests throughout the province. The tests were conducted by young farm men and women who were chosen for the work by Wheat Pool delegates in their sub-districts. Some of the young people were experienced test supervisors and others were taking part in the project for the first time.

Assistance in planning and supervising the tests was given by the Field Husbandry Department of the University of Saskatchewan.

The following table shows the type of tests conducted and the number of each:

Project	No. of Individual Tests	Varieties Used
Wheat.....	173	Thatcher, Apex 2177, Lee, Rescue and Redman.*
Oats.....	46	Ajax, Fortune and Clinton.
Barley.....	46	Montcalm, Vantage, Moore and N x 1-11.
Crop Comparison.....	55	Thatcher wheat, Fortune oats, Montcalm barley, Dakota flax.

*Only four varieties were used in each wheat test. Rescue was included in the tests in Cereal Variety Zones 1A to 2F, where sawfly resistance in a variety is an important characteristic. Rescue was replaced by Redman in the tests in Cereal Variety Zones 3A to 4B. (See Zone Map, page 35.)

The wheat, oats and barley projects were summarized for comparison on a yield per acre basis with several other important characteristics given consideration. The results are given for individual tests, and in addition are summarized according to cereal variety zones.

The section of the booklet dealing exclusively with wheat tests begins on page 9.

The oat tests were conducted only in the southern, central and western part of the province comprised by Cereal Variety Zones 1A to 2F. The section of the booklet dealing exclusively with oat tests begins on page 39.

The barley tests were conducted only in the northern and eastern part of the province comprised by Cereal Variety Zones 3A to 4B. The section of the booklet dealing exclusively with barley tests begins on page 48.

The crop comparison project conducted during 1951 was planned as the final test in a program which has been undertaken over a four year period to determine the relationship, on a cash-value-per-acre basis between the four major spring crops grown in Saskatchewan. Projects of this type were conducted during 1948 and 1949 and a considerable amount of data has been assembled and published on the results. A similar project was undertaken in 1950 but the severe frosts which occurred during August damaged a large number of tests to the extent that very little information of a practical nature was obtained. During 1951 the tests were again severely damaged by the unfavorable weather conditions at harvest time. Under the circumstances it was considered that a cash value analysis might prove misleading, and as a result the crop comparison section of the booklet, which begins on page 60, contains only a brief introductory statement and a summarization of the results of the individual tests.

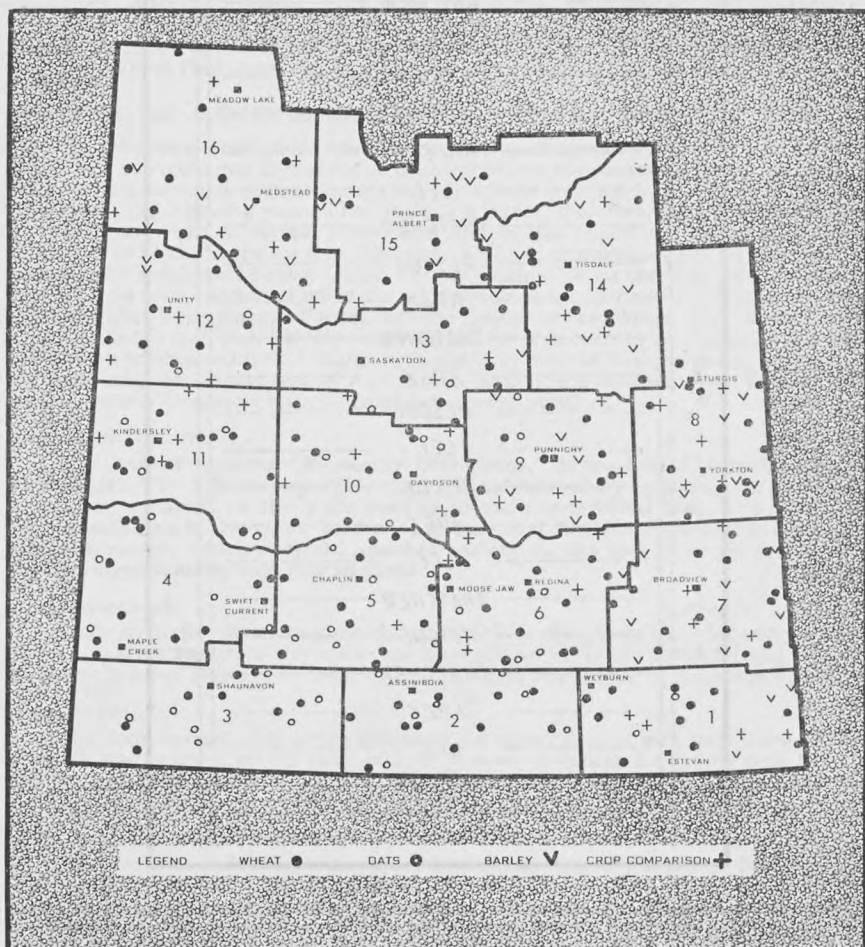
DESCRIPTION OF TESTS

A diagram of the wheat test appears on page 6. Twenty rows were sown, allowing for five replicates of each variety. The rows were $16\frac{1}{2}$ feet in length and were placed eighteen inches apart. For protection purposes, an extra buffer row was placed at each end of the test and the entire project was surrounded by a winter wheat border.

The oat tests and the barley tests were sown in a similar manner. Each test consisted of sixteen plots of two rows each. The rows, each $16\frac{1}{2}$ feet in length, were placed one foot apart. The sixteen plots allowed for each of the four varieties to be replicated four times throughout the test. One of the rows in each plot was used for testing purposes while the other served as a protection to the test row. For additional protection the entire test was surrounded by a winter wheat border.

The crop comparison tests consisted of sixteen plots of four rows each. The rows were $16\frac{1}{2}$ feet in length and were sown one foot apart. The two centre rows of each plot were harvested for yield and the two outside rows were used for protection and segregation. The entire test consisted of sixty-four rows and was surrounded by a winter wheat border.

MAP SHOWING LOCATION OF TESTS ACCORDING TO WHEAT POOL DISTRICTS

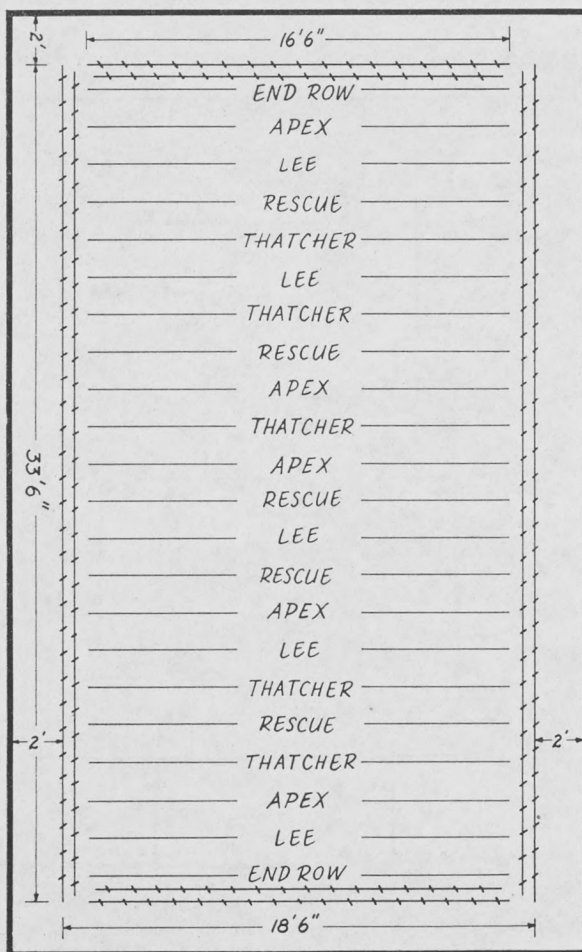


ORGANIZATION OF THE TESTING PROGRAM

In order to determine the suitability of a variety for use in different parts of the province it is necessary to conduct tests under as many different types of soil and climate as possible. An attempt was made in 1951, therefore, to place two tests in each of the 166 Wheat Pool sub-districts of Saskatchewan. With few exceptions the desired distribution was achieved. This is illustrated in the map below which shows the location of each test.

As the success of the project was dependent upon the accuracy with which each test was carried out, it was necessary to choose as test supervisors a group of dependable young farm people who had a keen interest in this type of work. Selection of the supervisors in each sub-district was carried out by the Wheat Pool delegate for the area. The Junior Co-operators chosen were, in most cases, between the ages of sixteen and twenty-one years.

PLAN OF WHEAT TEST



The crossed lines represent border rows of winter wheat. A two-foot pathway was left between the winter wheat border and the surrounding field crop. The oats, barley, and crop comparison tests were laid out in a similar manner except that thirty-three rows were sown in the oats and barley projects and sixty-four rows in the crop comparison tests.

The equipment required for each test was supplied from Head Office of the Wheat Pool in Regina. Individual parcels of seed were carefully prepared and were shipped to the supervisors together with full instructions explaining in detail the method of seeding the test. During the growing season, close contact was maintained between each of the 320 Junior Co-operators and the Junior Co-operative Department of the Wheat Pool organization.

The co-operators were requested to complete and forward regular progress reports concerning the comparative development of each variety. The information from these reports was summarized and was used as the basis for the results which appear in the booklet. When the grain was ripe, each co-operator carried out harvesting operations according to special instructions which had been supplied to him. Care was taken to ensure that the returns for each row were parcelled separately and were carefully marked in order to prevent errors in identification. The sheaves were dried and turned over to the nearest Pool Elevator agent for shipment to Head Office. On arrival at Regina, the sheaves were threshed separately and the yields were recorded. A sample of each variety was cleaned, weighed in pounds per measured bushel and graded.

Finally the yield, bushel weight and grade of each variety were entered on a summary sheet together with the detailed information which the co-operator had supplied in his reports during the growing season.

As has been the case during the past seventeen years, the project was planned and supervised under the guidance of Dr. J. B. Harrington, Professor of Field Husbandry, University of Saskatchewan, Saskatoon. The threshing, summarizing and statistical analysis in connection with the project were carried out at Head Office of the Saskatchewan Wheat Pool under the direction and supervision of I. K. Mumford.

FACTS TO BE REMEMBERED IN READING AND STUDYING RESULTS

The information compiled from the results of tests carried out during a single year should not be considered as conclusive evidence in the selection of a variety. A variety which gives a favorable performance in any one season may not do well under conditions which exist the following year. When making a choice, therefore, the farmer is advised to study the results of several years' tests and in this regard the pamphlet entitled "Varieties of Grain Crops for Saskatchewan, 1952," is recommended. This pamphlet is compiled by the Saskatchewan Cereal Variety Committee on the basis of information derived from tests conducted under the supervision of the University of Saskatchewan, the Dominion Experimental Farms, and the Saskatchewan Wheat Pool. Copies have been supplied to each Pool Elevator agent for the use of farmers in his district. Additional copies may be obtained free of charge from the University of Saskatchewan, Saskatoon; the Saskatchewan Department of Agriculture, Regina; the Saskatchewan Wheat Pool, Regina; or any Dominion Experimental farm in the province.

Necessary Difference

The statistical term "Necessary Difference," is used in different parts of this report. The "Necessary Difference" is calculated by applying an approved statistical formula to the yield results of each individual test. The result of the calculation is shown in bushels per acre and it represents the amount by which a variety must outyield another variety in the test in order to be considered significantly superior in yield.

Straw Strength

Straw strength was reported on the basis 10-0. If the plants in a plot were straight and erect, the strength of the straw was recorded as 10. If the straw showed signs of weakness a lower figure was used, depending upon the degree of weakness observed.

Neck Strength

This term appears only in the section of the report dealing with barley tests. Neck strength was recorded on the basis of 1, 2, 3, where 1 indicated a strong neck holding the head upright, 2 indicated a neck of medium strength, while 3 was used when the neck appeared weak.

Results of Individual Tests

The results of individual tests appear in the following tables: Wheat, No. 23; Oats, No. 34; Barley, No. 47; Crop Comparison, No. 48. These results are arranged according to Wheat Pool districts (illustrated on page 5), so that a reader who wishes to study the results in a particular area may readily locate the tests in which he is interested. It should be emphasized that the results of a single test give an accurate comparison of

the varieties only under the conditions which exist on the farm where the test is located. An examination of the results in these tables will reveal the fact that the varieties do not show similar relationships in all areas of the province. Results may differ widely, even in tests grown relatively close together. This variation may be due to several causes, most important of which are differences in soil type, climatic conditions, and date of seeding.

Grading Remarks

In determining commercial grades, bushel weight is a very important factor. However, there are many other factors which may lower the grade of a sample.

In the individual results, the column headed "Grading Remarks" contains abbreviations which are used to denote any adverse characteristics other than bushel weight, which appear in the sample of grain.

The following abbreviations have been used to indicate the various defects:

Bl.—Bleached
B. Bl.—Badly Bleached
B.P.—Black Point
Br.—Bronze
D.—Dark
Del.—Discolored
Dg.—Damaged
E.—Ergoty
S.E.—Some Ergoty

F.—Frosted.
S.F.—Some Frosted Kernels
B.F.—Badly Frosted
S.G.—Some Green
G.—Green
V.G.—Very Green
I.—Immature
S.I.—Slightly Immature
M.—Mildewed
Pk.—Pink

Pl.—Peeled
B. Pl.—Badly Peeled
S.—Smut
Sh.—Shrunken
S. Spr.—Some Sprouted Kernels
Spr.—Sprouted
St.—Stained
Stch.—Starchy
W.—Weathered
W.S.—Weather Stained



James Golightly of Mantario and his wheat test

ANALYSIS OF DATA

The individual tests were grouped for analysis on the basis of cereal variety zones. These zones, the boundaries of which were laid out by the Saskatchewan Cereal Variety Committee, are described below and illustrated on pages 34 and 35. Each zone represents an area within which the soil is of the same general type and where climatic conditions are normally somewhat similar. It should be stressed, however, that local conditions within a zone sometimes vary considerably from the average of the zone.

Cereal Variety Zones—Prevailing Soil Type and Climatic Conditions

- 1A Brown soils; subject to frequent droughts.
- 1B Brown soils; subject to more frequent droughts than 1A.
- 1C Brown soils; chiefly burn-out types; subject to more frequent droughts than 1A.
- 2A Dark brown soils; subject to occasional droughts; better moisture conditions than 1A.
- 2B Dark brown soils; slightly cooler than 2A.
- 2C Dark brown soils, bench land; cooler, shorter frost-free season and better moisture conditions than 1A.
- 2D Dark brown soils; higher elevation and distinctly shorter frost-free season than 2B.
- 2E Dark brown heavy clay soils; more drought resistance than 2A and 2B.
- 2F Brown and dark brown heavy clay soils; more drought resistance than 1A and adjoining 2B.
- 3A Black soils; better moisture conditions than 2A.
- 3B Deep black and degraded black soils; shorter frost-free period and better moisture conditions than 3A.

- 3C Black soils; better moisture conditions than 2B, and cooler than 3A and 3G.
 3D Deep black soils; better moisture conditions than 3E.
 3E Black soils; shorter frost-free season and better moisture conditions than 2D.
 3F Degraded black and some grey soils; shorter frost-free period than 3D.
 3G Black soils, medium to light textured, more droughty than 3E.
 3H Degraded black soils; distinctly short frost-free season.
 4A Grey and strongly degraded black soils; short frost-free season.
 4B Grey soils; distinctly short frost-free season; better moisture conditions than 3E.

Note.—The above descriptions are based on information contained in the "Guide to Farm Practice in Saskatchewan, 1951."

RAINFALL

As the amount of rainfall during the growing season has a greater influence upon the yields than the amount of annual precipitation, the rainfall shown in the following table covers only the months representing the growing period of wheat in Saskatchewan.

**TABLE No. 1.—AVERAGE MONTHLY PRECIPITATION IN INCHES
 DURING THE PERIOD MAY-AUGUST
 SUMMARIZED BY CEREAL VARIETY ZONES**

Cereal Variety Zone	May	June	July	August	Total
1A.....	.48	3.93	.86	3.88	9.15
1B, 1C, and 2C.....	.52	2.74	1.41	3.00	7.67
2A.....	.28	2.99	.38	3.71	7.36
2B.....	.89	3.76	1.64	3.37	9.66
2D.....	1.70	1.11	4.05	2.31	9.17
2E.....	.45	4.20	.88	3.56	9.09
2F.....	1.10	1.84	2.13	3.98	9.05
3A.....	.92	3.01	.79	3.29	8.01
3B.....	1.22	2.77	2.10	3.00	9.09
3C.....	1.07	3.65	1.31	3.08	9.11
3D and 3F.....	1.63	1.92	2.81	1.80	8.16
3E and 3G.....	1.79	1.16	3.59	1.86	8.40
4A.....	.78	3.11	2.52	2.92	9.33
4B.....	1.66	1.55	3.60	1.50	8.31

Note.—The above table was compiled from monthly rainfall records kept by test supervisors. Each supervisor was supplied with a rain gauge and one of his duties was to keep a monthly precipitation record.



The Wheat test conducted by Jack Lemoine, Moosomin

WHEAT TESTS

The wheat project consisted of 173 individual tests and the varieties Thatcher, Apex 2177, Lee, Rescue and Redman were tested. Only four varieties were placed in each test. Rescue was the fourth variety in tests throughout the open plains area of the province (Cereal Variety Zones 1A to 2F, inclusive)* where its sawfly resistant characteristics are of importance. Redman was used to replace Rescue in tests throughout

*See Cereal Variety Zone Map, page 35.

the black and grey soils of the park belt and wooded area (Cereal Variety Zones 3A to 4B, inclusive).

The importance of conducting a large number of tests in a project of this nature cannot be stressed too highly. It would be impossible in one year to undertake a project with sufficient scope to obtain results from all of the wide variety of soil and climatic types which occur in Saskatchewan. However, a great deal of care was taken in distributing the 173 tests in the Wheat Pool project and it is felt that the results in the following report reflect accurately the performance of the varieties on the main soil types and under the climatic conditions which occurred in the province during 1951.

DESCRIPTION OF VARIETIES

Thatcher was produced from a cross made in 1921 at the Minnesota Agricultural Experiment Station, St. Paul, between (Marquis x Iumillo) x (Marquis x Kanred). From one of the original crosses (Marquis x Iumillo), a bread wheat type was obtained with a considerable degree of resistance to stem rust under field conditions. From the Marquis x Kanred cross, a spring wheat was selected of good milling and baking quality that was immune to several forms of stem rust and had high yielding ability. Thatcher originated from a cross between these two. Thatcher is highly resistant to shattering and spring frost damage. It is resistant to stem rust (except race 15B), and to loose smut, but is susceptible to leaf rust and covered smut. Thatcher is moderately resistant to common rootrot.

Apex was developed at the University of Saskatchewan from the composite cross (H-44-24 x Double Cross) x Marquis. Double Cross is a sister of Thatcher. A new strain of Apex known as Sask. 2177, which resulted from backcrossing the original strain on to Marquis, was used in these tests. Apex is resistant to stem rust (except race 15B), moderately resistant to covered smut, loose smut, and rootrot, but is susceptible to leaf rust. It is moderately resistant to spring frost damage. Compared to the original variety Apex 2177 is higher in yield, stronger strawed, higher in bushel weight and slightly later.

Lee (CT-509) is moderately early maturing, bearded bread wheat variety developed at the University of Minnesota from a cross made between Hope and Timstein. Timstein is from the cross Triticum Timopheevi x Steinwedel and is of value to plant breeders only. Lee is resistant to stem rust excepting the new race 15B. It is highly resistant to leaf rust, susceptible to bunt, moderately resistant to loose smut and moderately susceptible to rootrot.

Redman is the result of a cross between Regent and Canus made in 1934 by the Cereal Division staff at the Dominion Laboratory of Cereal Breeding, Winnipeg, Manitoba. Canus was developed from a cross between Marquis and Kanred. Redman is resistant to stem rust (except race 15B) and covered smut, moderately resistant to loose smut, and is moderately susceptible to rootrot. Although resistant to some races of leaf rust, Redman is susceptible to those prevailing at the present time. It is resistant to shattering and moderately susceptible to spring frost damage. A new strain was used in these tests.

Rescue originated from a cross made at the Cereal Division, Central Experimental Farm, Ottawa, between Apex and S-615. The resultant population was transferred to the Dominion Experimental Station at Swift Current for exploitation. Here plant breeders, in co-operation with the Division of Entomology, Science Service, produced Rescue. It is the first bread wheat variety to be introduced which is capable of resisting attacks of the wheat stem sawfly to a high degree. Rescue is resistant to stem rust (except race 15B), moderately susceptible to common rootrot and susceptible to covered smut, loose smut and leaf rust. It is slightly less resistant than Thatcher to shattering and is susceptible to spring frost damage. A new strain designated Rescue 103 was used in these tests.

Table No. 2. Zones 1A to 2F. **Thatcher** was high in yield in every zone except 2D where it placed second to Apex by a narrow margin. **Apex** was second in yield on an average basis, giving its best performance in Zone 2D where it outyielded all other varieties. It produced reasonably good yields in the other zones, with the exception of 2E where it was significantly outyielded by all other varieties. **Lee** was outyielded significantly by Thatcher in most zones in this area. It placed second in three zones, third in two and fourth in two. **Rescue** gave comparatively poor results in the 1951 tests, yielding fourth on an average basis. Its best showing was in Zone 2A where it equalled Apex for second place.

**TABLE No. 2.—AVERAGE YIELDS IN BUSHELS PER ACRE
SUMMARIZED BY CEREAL VARIETY ZONES OR GROUPED ZONES**

Cereal Variety Zone	No. of Satisfactory Tests	Thatcher	Apex	Lee	Redman	Rescue	Necessary Difference* in Bushels
1A.....	28	23.6	21.5	21.6	—	20.1	.8
1B, 1C, and 2C.....	12	22.6	20.7	19.5	—	19.3	1.2
2A.....	8	15.2	14.0	13.8	—	14.0	1.1
2B.....	11	22.3	20.7	21.2	—	18.9	N.S.
2D.....	4	28.0	28.5	22.7	—	23.8	2.1
2E.....	6	29.2	25.0	27.7	—	27.1	1.8
2F.....	3	30.1	27.7	25.8	—	24.9	N.S.
3A.....	10	23.7	21.1	23.1	20.5	—	1.2
3B.....	14	32.8	32.0	30.7	30.5	—	1.4
3C.....	18	28.4	25.4	27.6	26.7	—	1.3
3D and 3F.....	5	40.6	38.8	36.4	37.8	—	2.9
3E and 3G.....	5	28.9	31.3	22.0	25.4	—	2.9
4A.....	4	37.5	34.4	33.6	35.3	—	N.S.
4B.....	4	41.7	39.9	32.3	37.0	—	3.1

*Necessary Difference.—Since yielding ability of varieties cannot be measured with absolute accuracy, small differences have no significance. Unless the difference in yield of two varieties is greater than the necessary difference as shown in the tables, little confidence can be placed in the superiority of one variety over the other in that particular zone group.

N.S.—No significant grain yield difference between varieties.

Zones 3A to 4B. **Thatcher** again proved superior in yield in this group of zones. It outyielded the other varieties in every zone except the 3E and 3G group where it placed second to Apex. On an average basis **Apex** placed second in yield. It outyielded all other varieties in the 3E and 3G Zone group, and gave its poorest performance in Zone 3C. It is interesting to note that the zones where Apex outyielded the other varieties are all in the north-central to northwestern part of the province (see zone map, page 35). **Redman** placed third in average yield and was inferior to Thatcher in all zones. In Zone 4A Redman placed second but in the other zones it ranked third or fourth in yield. **Lee** was outyielded by all other varieties, placing fourth in four of the seven zones in this group. Its best performance came in 3A and 3C. These zones, and particularly Zone 3A, represent the area where Lee gave its best results in Wheat Pool tests the previous year. As the southeast part of the province is often subject to heavy leaf rust infestation, the resistance of Lee to this disease undoubtedly is responsible in some degree for its better showing in that area.

**TABLE No. 3.—AVERAGE NUMBER OF DAYS FROM SEEDING TO RIPENING
SUMMARIZED BY CEREAL VARIETY ZONES**

Cereal Variety Zone	Thatcher	Apex	Lee	Rescue	Redman
1A.....	112.4	114.9	114.4	114.2	—
1B, 1C, and 2C.....	100.7	102.5	101.2	102.0	—
2A.....	99.8	100.8	101.8	101.3	—
2B.....	113.2	114.7	113.8	113.7	—
2D.....	120.0	124.0	126.5	122.5	—
2E.....	110.7	113.5	109.3	110.2	—
2F.....	106.0	113.0	109.0	106.0	—
3A.....	110.2	111.2	109.6	—	109.8
3B.....	111.8	112.8	114.0	—	111.0
3C.....	114.5	116.6	116.0	—	114.0
3D and 3F.....	113.8	115.8	115.2	—	116.0
3E and 3G.....	112.8	114.8	112.0	—	110.0
4A.....	135.0	135.0	132.0	—	135.0
4B.....	110.3	111.0	113.0	—	110.0

Table No. 3. Due to the extremely wet weather and snow which occurred throughout the entire harvesting period, Junior Co-operators in many cases found it very difficult to determine accurately the ripening dates of the different varieties. As a result this information was not available in a number of the final progress report forms submitted at harvest time.

Zones 1A to 2F. On the basis of the accurate reports received, however, **Thatcher** generally ripened earlier than the other varieties. **Rescue** was the second variety to mature in most of the zones, with **Lee** third, and **Apex** fourth.

Zones 3A to 4B. Generally **Redman** ripened earlier than the other varieties in these zones. **Thatcher** placed second. Considerable variation between zones occurred in the performance of **Lee** but on an average basis it ranked third. **Apex** again ripened later than the other varieties.

**TABLE No. 4.—AVERAGE HEIGHT OF PLANTS IN INCHES
SUMMARIZED BY CEREAL VARIETY ZONES**

Cereal Variety Zone	Thatcher	Apex	Lee	Rescue	Redman
1A.....	31.7	31.8	31.2	31.7	—
1B, 1C, and 2C.....	31.9	32.5	31.9	32.0	—
2A.....	27.6	27.0	27.4	27.1	—
2B.....	30.9	30.5	30.4	31.1	—
2D.....	29.0	32.3	27.8	30.0	—
2E.....	32.4	33.0	32.1	33.4	—
2F.....	26.0	25.0	24.0	24.0	—
3A.....	28.3	28.1	27.3	—	27.6
3B.....	37.4	41.3	37.8	—	37.3
3C.....	31.8	32.2	31.5	—	32.2
3D and 3F.....	38.8	40.8	39.8	—	39.3
3E and 3G.....	33.5	34.7	30.7	—	33.2
4A.....	30.0	30.0	30.0	—	30.0
4B.....	37.0	37.3	35.0	—	37.3

Table No. 4. Zones 1A to 2F. **Apex** was taller than the other varieties on an average basis. **Thatcher** and **Rescue** were practically equal, and **Lee** was slightly shorter than the other varieties.

Zones 3A to 4B. In these zones **Apex** again was slightly superior in height. **Thatcher** and **Redman** were equal on an average basis, and **Lee** was slightly shorter than the other varieties.

**TABLE No. 5.—AVERAGE STRAW STRENGTH OF PLANTS
ON THE BASIS 10 (STRONG) — 0 (WEAK)
SUMMARIZED BY CEREAL VARIETY ZONES**

Cereal Variety Zone	Thatcher	Apex	Lee	Rescue	Redman
1A.....	8.3	8.6	7.6	8.5	—
1B, 1C, and 2C.....	8.8	7.6	7.5	8.7	—
2A.....	9.3	9.0	9.2	9.4	—
2B.....	7.3	6.7	7.1	7.4	—
2D.....	8.9	7.9	9.3	8.9	—
2E.....	8.6	8.3	7.2	8.4	—
2F.....	6.8	6.4	6.2	7.2	—
3A.....	8.8	8.5	8.6	—	8.4
3B.....	8.9	9.0	8.5	—	9.3
3C.....	8.8	8.8	8.7	—	8.5
3D and 3F.....	8.3	7.8	7.7	—	8.3
3E and 3G.....	8.9	9.1	9.0	—	8.6
4A.....	—	—	—	—	—
4B.....	9.1	9.2	9.5	—	9.2

Table No. 5. Zones 1A to 2F. A general average indicates that **Rescue** had the strongest straw, followed closely by **Thatcher**. **Apex** was third in straw strength and **Lee** placed fourth.

Zones 3A to 4B. Very little difference in straw strength was shown in this group of zones. On an average basis, however, **Thatcher** proved slightly stronger than the other varieties, with **Apex** second, **Redman** third, and **Lee** fourth.

**TABLE No. 6.—AVERAGE WEIGHT PER MEASURED BUSHEL
SUMMARIZED BY CEREAL VARIETY ZONES**

Cereal Variety Zone	Thatcher	Apex	Lee	Rescue	Redman
1A.....	58.8	60.2	59.7	60.0	—
1B, 1C, and 2C.....	57.8	59.1	58.3	59.2	—
2A.....	59.2	60.7	60.2	60.3	—
2B.....	58.7	60.5	59.4	60.1	—
2D.....	62.5	62.5	61.8	62.3	—
2E.....	60.1	61.1	60.0	61.4	—
2F.....	60.3	60.3	60.0	60.7	—
3A.....	59.6	60.7	60.4	—	59.2
3B.....	60.8	61.7	60.8	—	60.4
3C.....	59.7	61.0	60.7	—	60.0
3D and 3F.....	61.0	61.0	58.8	—	59.6
3E and 3G.....	62.6	62.6	60.8	—	62.6
4A.....	59.2	59.3	58.1	—	59.0
4B.....	61.0	60.8	58.3	—	60.7

Table No. 6. Zones 1A to 2F. **Apex** and **Rescue** were practically equal in bushel weight, the differences being less than one-half pound per bushel in every zone. **Lee** and **Thatcher** placed third or fourth in most zones with Lee showing a slightly higher bushel weight on an average basis.

Zones 3A to 4B. **Apex** outweighed the other varieties, followed by **Thatcher**. **Redman** and **Lee** were practically equal on an average basis, although considerable variation was evident in the bushel weight of these varieties in individual zones.

TABLE No. 7.—PERCENTAGE OF COMMERCIAL GRADES BY VARIETIES
(ZONES 1A to 2F)

Variety	1 N.	2 N.	3 N.	4 N.	4 Sp.	No. 5	5 Sp.	No. 6	6 Sp.	Feed
	%	%	%	%	%	%	%	%	%	%
Thatcher.....	9.5	29.7	18.9	21.6	27.0	10.8	—	1.4	4.0	1.4
Apex.....	13.5	25.7	18.9	17.6	—	6.7	2.7	12.1	1.4	1.4
Lee.....	9.5	16.2	28.3	17.6	4.1	12.1	2.7	8.1	—	1.4
Rescue.....	14.9	29.7	20.3	13.5	2.7	10.8	2.7	5.4	—	—

TABLE No. 8.—PERCENTAGE OF COMMERCIAL GRADES BY VARIETIES
(ZONES 3A to 4B)

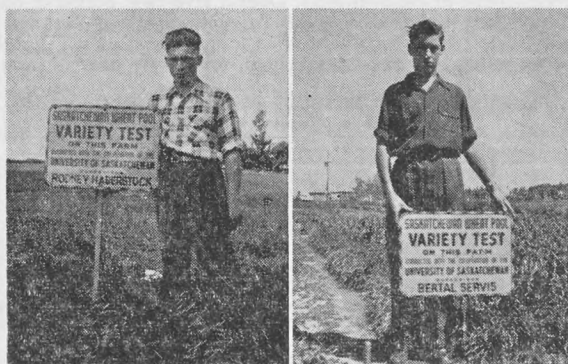
Variety	1 N.	2 N.	3 N.	4 N.	No. 5	No. 6	Feed
	%	%	%	%	%	%	%
Thatcher.....	9.0	30.9	32.8	9.0	5.6	10.9	1.8
Apex.....	3.6	25.5	40.0	10.9	7.3	12.7	—
Lee.....	1.8	18.1	36.4	20.0	7.3	14.6	1.8
Redman.....	7.3	20.0	40.0	9.0	7.3	14.6	1.8

Because of the adverse weather conditions during the harvest period comparatively few samples had high enough quality to meet top grade standards. The main factors contributing to the low grades were green and immature kernels and frost damage.

Table No. 7. Zones 1A to 2F. With 64.9 percent of the **Rescue** samples placing in the top three grades, this variety graded slightly better than the others. **Thatcher** and **Apex** were approximately equal in grading ability, and **Lee** ranked fourth.

Table No. 8. Zones 3A to 4B. **Thatcher** graded slightly better than the other varieties in this group of zones. **Apex** ranked second, outrading **Redman** by a narrow margin. **Lee** was somewhat inferior to the other varieties in commercial grades.

Due to the unusually wet conditions of the past fall, none of the varieties graded well. Under the circumstances these test grades cannot be considered a reliable indication of the grading ability of the varieties, and the differences which occurred are of little importance.



Wheat test supervisors Rodney Haberstock of Churchbridge (left), and Bertal Servis of Renown (right)

SUMMARIZATION ACCORDING TO CEREAL VARIETY ZONES

In comparing the performance of the varieties in a particular district, it is advisable to study, not only the results of the individual test in that district but also the average results of all tests conducted under similar conditions of soil and climate. Accordingly, the following section of the booklet has been prepared showing the average results of all tests within each cereal variety zone. The cereal variety zones are illustrated on page 35 and described in the "Analysis of Data," on page 8. Each zone represents an area within which the soil and climate are generally similar, although in some cases local variations occur which may influence the performance of a variety.

Because of different weather conditions which occur from one season to another, the results of several years' tests should be considered in judging the ability of a variety. The discussions of yield performance which follow are based on information obtained from Wheat Pool tests over a period of years.

The "official recommendations" referred to in the following pages are the recommendations of the Saskatchewan Cereal Variety Committee.

TABLE No. 9.—SUMMARIZED RESULTS FOR ZONE 1A
(28 satisfactory tests)

	Thatcher	Apex	Lee	Rescue
Yield in bushels per acre.....	23.6	21.5	21.6	20.1
Days from seeding to ripening.....	112.4	114.9	114.4	114.2
Height of plants in inches.....	31.7	31.8	31.2	31.7
Straw strength (maximum of 10).....	8.3	8.6	7.6	8.5
Bushel weight in pounds.....	58.8	60.2	59.7	60.0
Commercial grades in percentage:				
1 Nor.....	3.7	7.4	—	7.4
2 Nor.....	29.7	29.7	25.9	37.1
3 Nor.....	18.5	18.5	22.3	7.4
4 Nor.....	22.2	11.1	7.4	18.5
4 Sp.....	7.4	—	7.4	3.7
No. 5.....	11.1	14.8	25.9	18.5
5 Sp.....	—	—	3.7	3.7
No. 6.....	3.7	14.8	7.4	3.7
6 Sp.....	3.7	3.7	—	—

Necessary difference—.8 bushel.

Yield Performance During Recent Years—Zone 1A

Thatcher outyielded all other varieties significantly in 1951. Since its introduction in these tests almost fifteen years ago Thatcher has always given excellent results and its performance indicates that it is still the best variety for use in Zone 1A. Over the past five years Thatcher has outyielded all other varieties three times, ranked second once and fourth once.

Lee was second in yield during 1951, but did not outyield Apex significantly. In 1950, the first year it was tested by the Wheat Pool, Lee was outyielded by all other varieties. No definite recommendations will be made until Lee has been tested further but on the basis of evidence gathered so far it appears unlikely that it will be suitable for use in this area.

Apex placed third in yield in 1951. It has rarely equalled Thatcher on an average basis in this zone, and is not recommended.

Rescue placed fourth in yield in 1951. Over a five-year period it has been second in yield once, third twice and fourth twice. In each case four varieties were used in the tests. While its yield performance has been inferior to that of Thatcher, Rescue is highly resistant to sawflies and is recommended, for sawfly control only, in this zone.

TABLE No. 10.—SUMMARIZED RESULTS FOR ZONE GROUP 1B, 1C, AND 2C
(12 satisfactory tests)

	Thatcher	Apex	Lee	Rescue
Yield in bushels per acre.....	22.6	20.7	19.5	19.3
Days from seeding to ripening.....	100.7	102.5	101.2	102.0
Height of plants in inches.....	31.9	32.5	31.9	32.0
Straw strength (maximum of 10).....	8.8	7.6	7.5	8.7
Bushel weight in pounds.....	57.8	59.1	58.3	59.2
Commercial grades in percentage:				
1 Nor.....	27.2	27.2	27.2	27.2
2 Nor.....	18.2	18.2	9.1	18.2
3 Nor.....	—	—	—	9.1
4 Nor.....	9.1	9.1	9.1	—
4 Sp.....	—	—	9.1	9.1
No. 5.....	18.2	—	9.1	9.1
5 Sp.....	—	18.2	9.1	9.1
No. 6.....	—	18.2	18.2	18.2
6 Sp.....	18.2	—	—	—
Feed.....	9.1	9.1	9.1	—

Necessary difference—1.2 bushels.

Yield Performance During Recent Years—Zone Group 1B, 1C and 2C

The results shown above were obtained from ten tests in Zone 1B, one in 1C and one in 2C which were grouped together for analysis. It should be stressed that Zones 1C and 2C are by no means well represented, as only one satisfactory test was produced in each area. The above results, therefore, are almost completely representative of Zone 1B, but because the single tests in Zones 1C and 2C were conducted under somewhat similar conditions and showed similar reactions they were included with the 1B group for analysis.

Thatcher outyielded all other varieties significantly in 1951. In similar tests during the past five years, Thatcher has outyielded all other varieties three times and placed second twice. It is highly recommended for use in this zone.

Apex was second to Thatcher in yield during 1951, exceeding Rescue and Lee by differences which are significant. Out of four varieties, Apex yielded fourth in this zone in 1944, and third in 1946 and 1949. It was not included in the tests conducted in the intervening years. Apex is not recommended for the zone.

Lee and **Rescue** were practically equal in yield and both were significantly outyielded by Thatcher and Apex. Similar results were obtained in 1950. In the past two years of testing Lee has not shown any indication that it will be suitable for use in these zones. In tests in 1946 Rescue outyielded all other varieties. Since that time, however, it has ranked third or fourth in yield. It is recommended, for sawfly control only, in these zones.

TABLE No. 11.—SUMMARIZED RESULTS FOR ZONE 2A
(8 satisfactory tests)

	Thatcher	Apex	Lee	Rescue
Yield in bushels per acre.....	15.2	14.0	13.8	14.0
Days from seeding to ripening.....	99.8	100.8	101.8	101.3
Height of plants in inches.....	27.6	27.0	27.4	27.1
Straw strength (maximum of 10).....	9.3	9.0	9.2	9.4
Bushel weight in pounds.....	59.2	60.7	60.2	60.3
Commercial grades in percentage:				
1 Nor.....	10.0	10.0	10.0	10.0
2 Nor.....	40.0	30.0	10.0	40.0
3 Nor.....	30.0	30.0	50.0	20.0
4 Nor.....	10.0	20.0	30.0	20.0
No. 5.....	10.0	10.0	—	10.0

Necessary difference—1.1 bushels.

Yield Performance During Recent Years—Zone 2A

Thatcher outyielded all other varieties significantly in 1951. Its past record indicates that Thatcher is an excellent choice for Zone 2A and it is officially recommended. In tests during the past five years it has always placed first or second in yield with the exception of 1947 when it ranked third, being outyielded by Stewart and Pelissier durum.

Apex and **Rescue** were equal in yield in 1951. These varieties gave similar results in Wheat Pool tests during 1946 and 1948. Both have always been inferior to Thatcher in yield in Zone 2A and are not recommended for use in the area.

Lee was practically equal to Apex and Rescue in yield during 1951. It was outyielded significantly by Thatcher, however. In 1950, the first year it was tested, Lee outyielded all other varieties although its superiority over Thatcher was not significant. While it does not appear likely that Lee will supersede Thatcher in this area, it should be tested further before a definite recommendation is made. Due to its high resistance to leaf rust, Lee may have some usefulness in areas where this disease is an economic factor.

TABLE No. 12.—SUMMARIZED RESULTS FOR ZONE 2B
(11 satisfactory tests)

	Thatcher	Apex	Lee	Rescue
Yield in bushels per acre.....	22.3	20.7	21.2	18.9
Days from seeding to ripening.....	113.2	114.7	113.8	113.7
Height of plants in inches.....	30.9	30.5	30.4	31.1
Straw strength (maximum of 10).....	7.3	6.7	7.1	7.4
Bushel weight in pounds.....	58.7	60.5	59.4	60.1
Commercial grades in percentage:				
1 Nor.....	—	8.4	8.4	8.4
2 Nor.....	33.3	33.3	8.3	41.6
3 Nor.....	25.0	25.0	50.0	50.0
4 Nor.....	41.7	33.3	33.3	—

No significant grain yield difference between varieties.

Yield Performance During Recent Years—Zone 2B

Thatcher outyielded the other varieties in this zone in 1951 but the differences in yield were not significant. In Wheat Pool tests during the past five years Thatcher has consistently been the top yielder in Zone 2B, and is officially recommended.

Lee ranked second in yield in 1951. In 1950 it placed fourth out of four varieties. While further tests will be required before definite recommendations are made it is unlikely that Lee will be suitable for commercial production in this area.

Apex was third in yield in 1951. Except for 1948 when it equalled Thatcher, Apex has placed third or fourth out of four varieties in this zone during the past five years. It is not recommended for Zone 2B.

Rescue was low in yield in 1951. During the past five years it has always placed third or fourth out of four varieties in this zone. It is recommended for sawfly control only.



Ernest Earl of Sidewood and his wheat variety test

TABLE No. 13.—SUMMARIZED RESULTS FOR ZONE 2D
(4 satisfactory tests)

	Thatcher	Apex	Lee	Rescue
Yield in bushels per acre.....	28.0	28.5	22.7	23.8
Days from seeding to ripening.....	120.0	124.0	126.5	122.5
Height of plants in inches.....	29.0	32.3	27.8	30.0
Straw strength (maximum of 10).....	8.9	7.9	9.3	8.9
Bushel weight in pounds.....	62.5	62.5	61.8	62.3
Commercial grades in percentage: 1 Nor.....	—	—	—	25.0
2 Nor.....	75.0	50.0	50.0	25.0
3 Nor.....	—	25.0	25.0	25.0
4 Nor.....	—	—	—	25.0
No. 5.....	25.0	—	—	—
No. 6.....	—	25.0	25.0	—

Necessary difference—2.1 bushels.

Yield Performance During Recent Years—Zone 2D

Apex was high in yield in 1951, exceeding Rescue and Lee by differences which are significant. It usually has compared favorably with Thatcher in tests in this zone during the past five years. Apex is recommended for use in this area.

Thatcher placed second in yield. It was not significantly lower yielding than Apex, and it outyielded Rescue and Lee by more than the necessary difference. Thatcher has given very good results during past years and is officially recommended for use in this zone.

Rescue was considerably lower in yield than Thatcher and Apex during 1951. In previous tests it has usually placed third or fourth out of four varieties. Rescue is officially recommended for sawfly control purposes in Zone 2D.

Lee has been tested in Zone 2D for the past two years and has been outyielded by all other varieties both times. It should be tested further before definite recommendations are made.

TABLE No. 14.—SUMMARIZED RESULTS FOR ZONE 2E
(6 satisfactory tests)

	Thatcher	Apex	Lee	Rescue
Yield in bushels per acre.....	29.2	25.0	27.7	27.1
Days from seeding to ripening.....	110.7	113.5	109.3	110.2
Height of plants in inches.....	32.4	33.0	32.1	33.4
Straw strength (maximum of 10).....	8.6	8.3	7.2	8.4
Bushel weight in pounds.....	60.1	61.1	60.0	61.4
Commercial grades in percentage: 1 Nor.....	14.3	28.6	14.3	28.6
2 Nor.....	14.3	—	—	—
3 Nor.....	42.8	28.6	42.8	42.8
4 Nor.....	14.3	42.8	42.9	28.6
No. 5.....	14.3	—	—	—

Necessary difference—1.8 bushels.

Yield Performance During Recent Years—Zone 2E

During the past year, **Thatcher** outyielded both **Rescue** and **Apex** significantly. With the exception of 1949 when it placed fourth out of four varieties, **Thatcher** has shown general superiority in this zone. It is officially recommended.

Lee was second in yield in 1951, exceeding **Apex** by a significant margin. It ranked fourth out of four varieties in 1950, the first year it was included in Wheat Pool tests. No definite recommendations will be made regarding this variety until it has been tested further.

Rescue placed third in yield in 1951. It has been outyielded by **Thatcher** consistently in Wheat Pool tests during the past five years. It is not recommended for use in Zone 2E.

Apex was fourth in yield in 1951. Its performance in this zone previously was not outstanding and it is not recommended.

TABLE No. 15.—SUMMARIZED RESULTS FOR ZONE 2F
(3 satisfactory tests)

	Thatcher	Apex	Lee	Rescue
Yield in bushels per acre.....	30.1	27.7	25.8	24.9
Days from seeding to ripening.....	106.0	113.0	109.0	106.0
Height of plants in inches.....	26.0	25.0	24.0	24.0
Straw strength (maximum of 10).....	6.8	6.4	6.2	7.2
Bushel weight in pounds.....	60.3	60.3	60.0	60.7
Commercial grades in percentage: 1 Nor.....	33.3	33.3	33.3	33.3
4 Nor.....	33.3	—	—	—
No. 5.....	—	—	33.3	33.3
No. 6.....	33.4	66.7	33.4	33.4

No significant grain yield difference between varieties.

Yield Performance During Recent Years—Zone 2F

Thatcher was high in yield in 1951. It has shown general yield superiority over the other bread wheat varieties in this zone during the past five years and is highly recommended.

Apex was second in yield in 1951. It has been outyielded by **Thatcher** in Wheat Pool tests during recent years and is not recommended in Zone 2F.

Lee placed third in yield in 1951, and was fourth out of four varieties in 1950. Although further testing will be required before definite recommendations are made, it is unlikely that **Lee** will replace the present recommended varieties in this zone.

Rescue was fourth in yield in 1951. It has seldom yielded as well as **Thatcher** in Wheat Pool tests in this area, but is officially recommended because of its resistance to the attacks of sawflies.

TABLE No. 16.—SUMMARIZED RESULTS FOR ZONE 3A
(10 satisfactory tests)

	Thatcher	Apex	Lee	Redman
Yield in bushels per acre.....	23.7	21.1	23.1	20.5
Days from seeding to ripening.....	110.2	111.2	109.6	109.8
Height of plants in inches.....	28.3	28.1	27.3	27.6
Straw strength (maximum of 10).....	8.8	8.5	8.6	8.4
Bushel weight in pounds.....	59.6	60.7	60.4	59.2
Commercial grades in percentage:				
2 Nor.....	27.3	9.1	9.1	—
3 Nor.....	54.5	72.7	54.5	81.8
4 Nor.....	—	—	18.2	—
No. 5.....	9.1	18.2	18.2	9.1
Feed.....	9.1	—	—	9.1

Necessary difference—1.2 bushels.

Yield Performance During Recent Years—Zone 3A

Thatcher outyielded the other varieties, exceeding Apex and Redman by differences which are significant. Thatcher has given a very good performance in this area during past years, although it placed third in yield both in 1949 and 1950. In 1950 it was outyielded by both Lee and Redman. Generally, Thatcher ranks as one of the best varieties for this area, however, and is officially recommended, along with Redman.

Lee ranked second in yield in 1951. In 1950, the first year it was tested, it outyielded all other varieties in the zone. Official recommendations regarding the use of this variety will not be made until further tests are carried out, but the leaf rust resistance of Lee may be of considerable importance in this area. This disease occurs more frequently in Zone 3A than in most other zones of the province.

Apex was third in yield in 1951. Generally, it has not yielded as well as Thatcher in previous tests and is not recommended for the zone.

Redman placed fourth in yield in 1951. It has given good results in this area in past years, however, outyielding all other varieties in tests during 1946 and 1947. In 1948 it was third in yield and in 1950 it placed second. Redman is officially recommended for use in this zone.

TABLE No. 17.—SUMMARIZED RESULTS FOR ZONE 3B
(14 satisfactory tests)

	Thatcher	Apex	Lee	Redman
Yield in bushels per acre.....	32.8	32.0	30.7	30.5
Days from seeding to ripening.....	111.8	112.8	114.0	111.0
Height of plants in inches.....	37.4	41.3	37.8	37.3
Straw strength (maximum of 10).....	8.9	9.0	8.5	9.3
Bushel weight in pounds.....	60.8	61.7	60.8	60.4
Commercial grades in percentage:				
1 Nor.....	14.3	7.1	—	7.1
2 Nor.....	28.6	21.4	21.4	14.3
3 Nor.....	28.6	35.8	43.0	50.0
4 Nor.....	14.3	14.3	7.1	—
No. 5.....	7.1	7.1	7.1	14.3
No. 6.....	7.1	14.3	21.4	14.3

Necessary difference—1.4 bushels.

Yield Performance During Recent Years—Zone 3B

Thatcher was high in yield in 1951, exceeding Lee and Redman by differences which are significant. It has given excellent results in the past and is officially recommended for use in this zone.

Apex was second in yield in 1951. Its yield performance in previous Wheat Pool tests has been reasonably good, placing second out of four varieties in 1946, 1948 and 1949.

Lee ranked third in yield in 1951, but failed to exceed Redman significantly. In 1950, the first year it was used in Wheat Pool tests, it placed third also. Definite recommendations regarding Lee will not be made until further tests are carried out.

Although **Redman** was outyielded by all other varieties in 1951, it has generally given a satisfactory performance in previous years. Redman placed first in yield in 1950. It is recommended officially for use in Zone 3B.



Bruce Haughn of Kenaston and the sheaves from his wheat variety test

TABLE No. 18.—SUMMARIZED RESULTS FOR ZONE 3C
(18 satisfactory tests)

	Thatcher	Apex	Lee	Redman
Yield in bushels per acre.....	28.4	25.4	27.6	26.7
Days from seeding to ripening.....	114.5	116.6	116.0	114.0
Height of plants in inches.....	31.8	32.2	31.5	32.2
Straw strength (maximum of 10).....	8.8	8.8	8.7	8.5
Bushel weight in pounds.....	59.7	61.0	60.7	60.0
Commercial grades in percentage:				
1 Nor.....	—	—	6.3	6.3
2 Nor.....	37.5	37.5	18.7	31.2
3 Nor.....	31.2	37.5	37.5	31.2
4 Nor.....	12.5	6.2	18.8	12.5
No. 6.....	18.8	18.8	18.7	18.8

Necessary difference—1.3 bushels.

Yield Performance During Recent Years—Zone 3C

Thatcher was high in yield in 1951, exceeding Redman and Apex by differences which are significant. In past years Thatcher has usually yielded first or second in Zone 3C and is officially recommended.

Lee placed second in yield during 1951, outyielding Apex significantly. In 1950, the first year that Lee was used in these tests, it placed third but was not significantly outyielded by any of the other varieties. Further tests will be carried out with this variety before definite recommendations are made.

Redman was third in yield in 1951. Although it was approximately equal to Thatcher in 1950, Redman has usually produced slightly lower yields than the standard variety in this zone. During the past year Redman was removed from the list of recommended varieties for Zone 3C.

Apex was outyielded by all other varieties in 1951. It has rarely yielded as well as Thatcher in Wheat Pool tests in Zone 3C, and is not recommended.

TABLE No. 19.—SUMMARIZED RESULTS FOR ZONE GROUP 3D AND 3F
(5 satisfactory tests)

	Thatcher	Apex	Lee	Redman
Yield in bushels per acre.....	40.6	38.8	36.4	37.8
Days from seeding to ripening.....	113.8	115.8	115.2	116.0
Height of plants in inches.....	38.8	40.8	39.8	39.3
Straw strength (maximum of 10).....	8.3	7.8	7.7	8.3
Bushel weight in pounds.....	61.0	61.0	58.8	59.6
Commercial grades in percentage:				
2 Nor.....	25.0	—	—	25.0
3 Nor.....	25.0	25.0	25.0	—
4 Nor.....	25.0	50.0	50.0	50.0
No. 5.....	25.0	25.0	—	—
No. 6.....	—	—	—	25.0
Feed.....	—	—	25.0	—

Necessary difference—2.9 bushels.

Yield Performance During Recent Years—Zone Group 3D and 3F

Only one satisfactory test was conducted in Zone 3F and this was included with the tests in Zone 3D for analysis. While the single test in Zone 3F produced similar results to those in Zone 3D, it should be borne in mind that this test may not be representative of the entire zone.

Thatcher outyielded the other varieties in 1951, exceeding Lee by a significant margin. In past years Thatcher has shown definite superiority in tests in this region, and it is highly recommended.

Apex placed second in yield in 1951. In previous tests it has given generally good results but has never equalled Thatcher in yielding ability.

Redman was third in yield in 1951. On an average basis, it has been outyielded by Thatcher in tests during the past five years. Redman is no longer recommended for use in Zones 3D and 3F.

Lee has been tested for two years in this zone and placed fourth in yield each time.

TABLE No. 20.—SUMMARIZED RESULTS FOR ZONE GROUP 3E AND 3G
(5 satisfactory tests)

	Thatcher	Apex	Lee	Redman
Yield in bushels per acre.....	28.9	31.3	22.0	25.4
Days from seeding to ripening.....	112.8	114.8	112.0	110.0
Height of plants in inches.....	33.5	34.7	30.7	33.2
Straw strength (maximum of 10).....	8.9	9.1	9.0	8.6
Bushel weight in pounds.....	62.6	62.6	60.8	62.6
Commercial grades in percentage: 1 Nor.....	50.0	25.0	—	25.0
2 Nor.....	25.0	50.0	50.0	50.0
3 Nor.....	25.0	25.0	—	—
4 Nor.....	—	—	50.0	25.0

Necessary difference—2.9 bushels.

Yield Performance During Recent Years—Zone Group 3E and 3G

The results shown in the above table are based on data from three satisfactory tests conducted in Zone 3E and two satisfactory tests in Zone 3G.

Apex outyielded all other varieties in 1951. It failed to exceed Thatcher by a significant margin but both Apex and Thatcher showed definite superiority over Redman and Lee. The performance of Apex in past years has been slightly inferior to that of the standard variety, however, and it is not officially recommended for use in this area.

Thatcher placed second in yield in 1951. It has given excellent results previously in this zone and is highly recommended.

Redman was third in yield in 1951. During 1950, when these zones were analyzed on a separate basis, Redman was practically equal to Thatcher in yield in Zone 3E, but was significantly outyielded by the standard variety in Zone 3G. It is recommended for use in Zone 3E but not in Zone 3G.

Lee has been outyielded by all other varieties in this region during each of the past two years.

TABLE No. 21.—SUMMARIZED RESULTS FOR ZONE 4A
(4 satisfactory tests)

	Thatcher	Apex	Lee	Redman
Yield in bushels per acre.....	37.5	34.4	33.6	35.3
Days from seeding to ripening.....	135.0	135.0	132.0	135.0
Height of plants in inches.....	30.0	30.0	30.0	30.0
Straw strength (maximum of 10).....	—	—	—	—
Bushel weight in pounds.....	59.2	59.3	58.1	59.0
Commercial grades in percentage: 2 Nor.....	33.3	—	—	—
3 Nor.....	33.3	33.3	33.3	33.3
4 Nor.....	—	33.3	—	—
No. 5.....	—	—	33.3	33.3
No. 6.....	33.4	33.4	33.4	33.4

No significant grain yield difference between varieties.

Yield Performance During Recent Years—Zone 4A

Thatcher has outyielded all other varieties in this zone during three of the past five years. It placed second to Apex in 1948 and ranked third in 1949. In earlier years Thatcher consistently outyielded all other varieties, and is officially recommended for use in Zone 4A.

Redman was second in yield in 1951. It has never yielded as well as Thatcher in Wheat Pool tests throughout this zone. Redman is not recommended.

Apex generally has not equalled Thatcher in yield and is not recommended for use in Zone 4A.

Lee has been outyielded by all other varieties during each of the years that it has been tested in this zone.

TABLE No. 22.—SUMMARIZED RESULTS FOR ZONE 4B
(4 satisfactory tests)

	Thatcher	Apex	Lee	Redman
Yield in bushels per acre.....	41.7	39.9	32.3	37.0
Days from seeding to ripening.....	110.3	111.0	113.0	110.0
Height of plants in inches.....	37.0	37.3	35.0	37.3
Straw strength (maximum of 10).....	9.1	9.2	9.5	9.2
Bushel weight in pounds.....	61.0	60.8	58.3	60.7
Commercial grades in percentage: 1 Nor.....	33.3	—	—	33.3
2 Nor.....	33.3	66.7	33.3	33.3
4 Nor.....	—	—	33.3	—
No. 6.....	33.4	33.3	33.4	33.4

Necessary difference—3.1 bushels.

Yield Performance During Recent Years—Zone 4B

Thatcher has been superior in yield during the past five years and is officially recommended for use in Zone 4B.

Apex has been tested during four of the past six years. It was second in yield during three years and placed third in 1949. It has not generally yielded as well as Thatcher and is not officially recommended.

Redman has been tested during four of the past five years, and placed third each time. It is not recommended for use in Zone 4B.

Lee was tested in 1950 and 1951, and was outyielded by all other varieties in both years.



Variety Test supervisors Richard Campbell of Tessier (left), and Reginald Chessall of Hume (right)

TABLE No. 23

Individual Summarized Results of All Tests—Wheat

The results of all successful wheat tests are shown individually in the following table. The tests are listed in order of Wheat Pool districts and sub-districts. The zone in which each test was located is shown under the column headed "Cereal Variety Zone." Before consulting the following table the reader is advised to refer to the discussion on page 7, headed, "Facts to be Remembered in Reading and Studying Results."

Important.—It should be kept in mind that the results of a single test should not be used as the basis for the choice of a variety. A more reliable guide is the yield performance discussion in the summarization according to Cereal Variety Zones, which is based on a large number of tests conducted over a period of years.

WHEAT POOL DISTRICT 1

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per meas-ured bushel	Com-mercial grades	Grading remarks
BETTY C. CAVEN, GAINSBOROUGH											
3A.....	1	1	A	Thatcher.....	3.8	—	16	10.0	50	Feed	G., I.
				Apex.....	2.6	—	16	10.0	53	No. 5	G., I.
				Lee.....	2.4	—	16	10.0	55	No. 5	G., I.
				Redman.....	3.0	—	16	10.0	49	Feed	—
Damaged by drought and sawflies—yields not used in zone summaries.											
HARVEY MARCHAND, STORTHOAKS											
3A.....	1	2	A	Thatcher.....	24.1	—	—	—	59	3 N.	I.
				Apex.....	22.5	—	—	—	59	3 N.	I.
				Lee.....	26.2	—	—	—	60	4 N.	G., I.
				Redman.....	21.3	—	—	—	60	3 N.	G., I.
Necessary difference—2.8 bushels.											
LINDSAY HAUG, KISBEY											
3A.....	1	4	A	Thatcher.....	19.4	—	—	—	61	2 N.	G.
				Apex.....	17.7	—	—	—	62	3 N.	G., I.
				Lee.....	18.8	—	—	—	62	2 N.	G.
				Redman.....	17.3	—	—	—	59	3 N.	I.
No significant grain yield difference between varieties.											
DONALD J. TURK, HIRSCH											
2A.....	1	4	B	Thatcher.....	13.1	—	—	—	58	3 N.	I.
				Apex.....	10.3	—	—	—	59	2 N.	—
				Lee.....	9.6	—	—	—	58	3 N.	I.
				Rescue.....	10.2	—	—	—	59	2 N.	—
Necessary difference—1.5 bushels.											
ARTHUR J. ULRICH, WOODLEY											
2A.....	1	5	A	Thatcher.....	8.3	—	—	—	63	1 N.	—
				Apex.....	9.2	—	—	—	64	1 N.	—
				Lee.....	7.6	—	—	—	63	1 N.	—
				Rescue.....	7.7	—	—	—	64	1 N.	—
Necessary difference—.9 bushel.											
FRANK and JOHN WEINRAUCH, TORQUAY											
2A.....	1	6	A	Thatcher.....	9.7	101	26	—	61	3 N.	Br., G., I.
				Apex.....	9.4	101	21	—	62	3 N.	Br., G., I.
				Lee.....	9.1	102	20	—	62	3 N.	Br., G., I.
				Rescue.....	7.4	102	24	—	62	3 N.	Br., G., I.
Samples incomplete—yields not used in zone summaries.											
JAMES S. FORSYTHE, COLGATE											
2A.....	1	7	A	Thatcher.....	20.9	110	33	9.8	60	2 N.	S.G.
				Apex.....	18.7	109	33	9.6	62	2 N.	S.G.
				Lee.....	20.2	108	35	10.0	60	3 N.	G., I.
				Rescue.....	19.4	111	34	10.0	61	2 N.	S.G.
No significant grain yield difference between varieties.											
RALPH L. COLTART, WEYBURN											
2A.....	1	8	A	Thatcher.....	16.7	87	28	—	60	3 N.	G., I.
				Apex.....	10.2	90	27	—	59	4 N.	G., I.
				Lee.....	17.2	94	30	—	59	4 N.	G., I.
				Rescue.....	9.2	90	24	—	59	4 N.	G., I.
Samples bulked—yields not used in zone summaries.											

Wheat Pool District 1—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per measured bushel	Com- mercial grades	Grading remarks
REGINALD R. CHESSALL, HUME											
2A.....	1	8	B	Thatcher.....	16.0	—	22	—	57	3 N.	—
				Apex.....	12.2	—	22	—	58	3 N.	I.
				Lee.....	13.5	—	26	—	59	3 N.	I., M.
				Rescue.....	14.3	—	23	—	58	3 N.	I., M.
Necessary difference—1.3 bushels.											
MURRAY D. CLARK, CARLYLE											
3A.....	1	10	A	Thatcher.....	21.1	106	28	9.0	63	2 N.	I.
				Apex.....	19.1	106	29	9.0	64	3 N.	G., I.
				Lee.....	17.0	106	20	8.0	64	3 N.	G., I.
				Redman.....	15.7	103	24	8.0	62	3 N.	I.
Necessary difference—1.3 bushels.											
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes											
2A.....	1	9	A	Marie Guillemin, Forget.							

WHEAT POOL DISTRICT 2

MARYANN E. SELME, RADVILLE											
2A.....	2	1	A	Thatcher.....	12.5	101	28	9.0	58	4 N.	G., I.
				Apex.....	12.3	103	30	8.6	61	4 N.	G., I.
				Lee.....	13.0	103	28	8.4	60	4 N.	G., I.
				Rescue.....	10.3	102	29	8.8	60	4 N.	G., I.
No significant grain yield difference between varieties.											
MARTIN WROLSON, HARPTREE											
1A.....	2	3	A	Thatcher.....	12.8	—	—	—	57	4 N.	F.
				Apex.....	11.2	—	—	—	59	No. 6	B.F.
				Lee.....	11.1	—	—	—	59	No. 5	F.
				Rescue.....	8.9	—	—	—	58	No. 5	F.
Necessary difference—1.1 bushels.											
ERIC KOLLER, SCOUT LAKE											
1A.....	2	4	A	Thatcher.....	24.7	106	35	9.0	59	2 N.	—
				Apex.....	24.5	109	35	8.0	62	2 N.	S.G.
				Lee.....	25.6	103	35	10.0	61	2 N.	S.G.
				Rescue.....	24.5	107	35	9.0	62	2 N.	S.G.
No significant grain yield difference between varieties.											
JOHNNIE E. MCGOWAN, KILLDEER											
1A.....	2	5	A	Thatcher.....	10.8	—	—	9.0	62	4 N.	S.F., G.
				Apex.....	10.9	—	—	8.0	63	No. 6	B.F.
				Lee.....	7.7	—	—	9.0	62	No. 5	F.
				Rescue.....	9.3	—	—	9.0	62	4 N.	S.F., G.
Necessary difference—1.4 bushels.											
HAROLD J. KUFFNER, GLENTWORTH											
1A.....	2	6	A	Thatcher.....	12.4	—	22	9.2	58	3 N.	I.
				Apex.....	11.3	—	22	7.8	61	2 N.	I.
				Lee.....	13.4	—	24	9.0	60	2 N.	I.
				Rescue.....	11.3	—	22	8.8	61	2 N.	I.
No significant grain yield difference between varieties.											
CLARENCE L. OANCIA, STONEHENGE											
1A.....	2	7	A	Thatcher.....	18.4	123	30	8.4	58	2 N.	—
				Apex.....	17.4	123	30	8.6	61	2 N.	I.
				Lee.....	15.3	121	30	7.8	60	2 N.	I.
				Rescue.....	14.7	123	30	7.8	60	2 N.	I.
Necessary difference—2.2 bushels.											
GORDON BRAMALL, READLYN											
1A.....	2	8	A	Thatcher.....	11.2	—	—	—	59	2 N.	—
				Apex.....	9.1	—	—	—	62	1 N.	—
				Lee.....	9.7	—	—	—	61	2 N.	I.
				Rescue.....	7.0	—	—	—	62	2 N.	I.
Necessary difference—.9 bushel.											
HENRY A. HOLT, BENGOUGH											
1A.....	2	9	A	Thatcher.....	38.3	105	33	6.0	63	1 N.	—
				Apex.....	33.0	109	36	10.0	64	2 N.	I.
				Lee.....	33.3	105	34	8.0	63	2 N.	I.
				Rescue.....	31.5	109	34	10.0	64	2 N.	I.
Necessary difference—1.9 bushels.											

Wheat Pool District 2—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
ERNEST J. SCHENHER, GLASNEVIN											
1A.....	2	9	B	Thatcher.....	22.8	—	31	8.0	57	3 N.	—
				Apex.....	20.2	—	32	8.2	60	3 N.	G., I.
				Lee.....	20.5	—	30	5.2	59	4 N.	G., I.
				Rescue.....	18.2	—	31	7.2	59	2 N.	—
Necessary difference—1.7 bushels.											
W. WAYNE CLEWS, PANGMAN											
2A.....	2	10	A	Thatcher.....	19.0	—	23	9.0	63	2 N.	I.
				Apex.....	16.8	—	22	8.0	65	2 N.	I.
				Lee.....	15.6	—	21	9.0	64	3 N.	G., I.
				Rescue.....	14.8	—	23	9.0	64	2 N.	I.
Necessary difference—1.3 bushels.											
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes											
1A.....	2	4	B	Henry Cote, Scout Lake.							

WHEAT POOL DISTRICT 3

JACK A. DAVIDSON, PONTEIX											
1A.....	3	2	A	Thatcher.....	16.2	—	—	7.0	56	4 N.	—
				Apex.....	16.2	—	—	8.0	59	2 N.	—
				Lee.....	15.9	—	—	5.0	57	3 N.	—
				Rescue.....	14.0	—	—	9.0	59	2 N.	—
Necessary difference—1.4 bushels.											
GEORGE W. BRACKENBURY, DIVIDE											
1C.....	3	4	A	Thatcher.....	14.0	97	30	—	49	6 Spec.	—
				Apex.....	12.3	99	28	—	51	5 Spec.	—
				Lee.....	14.4	96	31	—	52	5 Spec.	—
				Rescue.....	12.9	97	28	—	53	4 Spec.	—
Necessary difference—.7 bushel.											
ELIV H. ANDERSON, ROBSART											
1C.....	3	5	A	Thatcher.....	35.3	—	—	9.2	62	1 N.	—
				Apex.....	29.9	—	—	8.6	64	1 N.	—
				Lee.....	37.3	—	—	8.4	64	1 N.	—
				Rescue.....	19.1	—	—	8.6	64	1 N.	—
Test damaged—yields not used in zone summaries.											
JOHN W. REBBECK, SOUTH FORK											
1A.....	3	7	A	Thatcher.....	23.6	132	31	9.0	61	4 N.	F.
				Apex.....	24.0	132	31	10.0	60	No. 5	F.
				Lee.....	23.2	135	30	8.0	60	No. 5	F.
				Rescue.....	22.7	132	33	10.0	61	4 N.	F.
No significant grain yield difference between varieties.											
ELMER J. ANDERSON, SHAUNAVON											
1A.....	3	8	A	Thatcher.....	14.1	99	27	9.4	54	4 Spec.	—
				Apex.....	13.5	102	26	8.8	57	3 N.	—
				Lee.....	14.6	99	27	7.0	54	4 Spec.	—
				Rescue.....	11.5	101	27	8.8	54	4 Spec.	—
Necessary difference—1.0 bushel.											
EDWARD J. LACROIX, CRICHTON											
1A.....	3	9	A	Thatcher.....	27.7	—	—	—	62	2 N.	S.G.
				Apex.....	25.5	—	—	—	63	2 N.	S.G.
				Lee.....	26.1	—	—	—	62	3 N.	I.
				Rescue.....	22.9	—	—	—	63	1 N.	—
No significant grain yield difference between varieties.											
BERNARD J. PIGOTT, ANEROID											
1A.....	3	10	A	Thatcher.....	18.1	99	36	9.2	49	6 Spec.	—
				Apex.....	15.9	98	36	9.0	50	6 Spec.	—
				Lee.....	19.6	100	35	9.4	51	5 Spec.	—
				Rescue.....	17.7	97	37	9.0	52	5 Spec.	—
Necessary difference—1.9 bushels.											
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes											
1A.....	3	8	B	Donald R. and Edward R. Schlemko, Scotsguard.							

WHEAT POOL DISTRICT 4

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per meas-ured bushel	Com-mercial grades	Grading remarks
ERNEST W. EARL, SIDEWOOD											
1B.....	4	1	A	Thatcher.....	37.6	104	38	9.8	61	2 N.	S. Spr.
				Apex.....	31.0	105	39	9.2	62	2 N.	I.
				Lee.....	33.0	102	39	9.0	62	2 N.	I.
				Rescue.....	30.1	109	40	9.8	62	2 N.	I.
Necessary difference—4.1 bushels.											
NORMAN ANHORN, HATTON											
1B.....	4	2	A	Thatcher.....	10.7	90	30	9.8	47	Feed	—
				Apex.....	6.1	90	32	10.0	48	Feed	—
				Lee.....	9.3	90	31	9.0	48	Feed	—
				Rescue.....	6.5	91	30	10.0	51	No. 6	G., I.
Necessary difference—.9 bushel.											
DANIEL EREMENKO, MAPLE CREEK											
1B.....	4	2	B	Thatcher.....	13.2	—	—	—	60	No. 5	G., F.
				Apex.....	12.8	—	—	—	61	No. 6	G., F.
				Lee.....	12.2	—	—	—	60	No. 6	G., F.
				Rescue.....	12.7	—	—	—	61	No. 5	G., F.
No significant grain yield difference between varieties.											
WALTER H. NISBET, SUCCESS											
1A.....	4	3	A	Thatcher.....	41.8	—	36	8.0	59	No. 6	B.F., G.
				Apex.....	35.9	—	39	9.0	57	No. 6	B.F., G.
				Lee.....	35.5	—	38	7.0	59	No. 6	B.F., G.
				Rescue.....	36.7	—	35	8.0	60	No. 6	B.F., G.
No significant grain yield difference between varieties.											
C. VICTOR REIMER, LEINAN											
1A.....	4	3	B	Thatcher.....	17.6	—	26	8.2	59	2 N.	I.
				Apex.....	16.1	—	22	8.8	60	2 N.	I.
				Lee.....	16.4	—	23	6.4	61	2 N.	I.
				Rescue.....	16.1	—	25	7.8	62	2 N.	I.
No significant grain yield difference between varieties.											
ZENE J. DOWNEY, GULL LAKE											
1A.....	4	4	A	Thatcher.....	15.5	—	—	—	55	4 Spec.	—
				Apex.....	12.1	—	—	—	57	3 N.	—
				Lee.....	15.4	—	—	—	54	4 Spec.	—
				Rescue.....	11.8	—	—	—	56	4 N.	—
Necessary difference—1.1 bushels.											
VERNON D. ERMAN, GOLDEN PRAIRIE											
1B.....	4	6	A	Thatcher.....	24.6	—	—	—	61	2 N.	Bl., S.F.
				Apex.....	22.6	—	—	—	62	4 N.	B.F.
				Lee.....	23.6	—	—	—	60	4 N.	B.F.
				Rescue.....	23.5	—	—	—	61	2 N.	Bl., I.
No significant grain yield difference between varieties.											
CLARENCE ALBRECHT, LINACRE											
1B.....	4	7	A	Thatcher.....	18.7	95	38	8.8	50	6 Spec.	—
				Apex.....	16.0	97	37	9.2	52	5 Spec.	—
				Lee.....	17.0	94	37	9.8	53	4 Spec.	—
				Rescue.....	15.9	95	37	9.4	52	5 Spec.	—
Necessary difference—1.0 bushel.											
JUDITH B. GILL, LEADER											
1B.....	4	8	A	Thatcher.....	15.3	107	33	8.0	56	4 N.	—
				Apex.....	13.9	108	36	8.5	61	2 N.	G.
				Lee.....	10.7	109	34	8.5	55	No. 5	F., I.
				Rescue.....	13.1	109	34	9.5	57	3 N.	—
Necessary difference—1.6 bushels.											
DENNIS M. GIZEN, PRELATE											
1B.....	4	8	B	Thatcher.....	18.8	—	24	—	62	1 N.	—
				Apex.....	19.7	—	25	—	64	1 N.	—
				Lee.....	16.3	—	23	—	62	1 N.	—
				Rescue.....	15.8	—	24	—	63	1 N.	—
No significant grain yield difference between varieties.											
CHARLES E. MARTIN, SCEPTRE											
1A.....	4	9	A	Thatcher.....	7.5	—	—	—	61	2 N.	I.
				Apex.....	6.0	—	—	—	60	4 N.	B.F., G.
				Lee.....	3.8	—	—	—	60	4 N.	F., Spr.
				Rescue.....	5.6	—	—	—	60	4 N.	F., Spr.
Test damaged by hail and shattering—yields not used in zone summaries.											

WHEAT POOL DISTRICT 5

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per meas-ured bushel	Com-mercial grades	Grading remarks
EDWARD J. BOWLER, PALMER											
1A.....	5	1	A	Thatcher.....	20.0	124	27	9.4	60	3 N.	G., I.
				Apex.....	16.4	124	26	9.6	62	2 N.	I.
				Lee.....	16.6	124	27	9.4	62	2 N.	I.
				Rescue.....	15.2	125	26	9.0	61	2 N.	I.
Necessary difference—2.3 bushels.											
VERNON OEHLERKING, GRAVELBOURG											
1A.....	5	2	A	Thatcher.....	19.4	—	—	—	59	2 N.	—
				Apex.....	19.4	—	—	—	60	2 N.	S.G.
				Lee.....	18.8	—	—	—	59	2 N.	—
				Rescue.....	16.4	—	—	—	61	2 N.	S.G.
No significant grain yield difference between varieties.											
DALE FOWKE, NEVILLE											
1A.....	5	3	A	Thatcher.....	18.0	—	—	—	58	No. 5	D.G., I.
				Apex.....	14.8	—	—	—	60	No. 5	D.G., I.
				Lee.....	16.0	—	—	—	59	No. 5	D.G., I.
				Rescue.....	13.8	—	—	—	60	No. 5	D.G., I.
Necessary difference—1.6 bushels.											
LEONA B. VEER, WALDECK											
1A.....	5	4	A	Thatcher.....	31.2	—	37	6.0	58	4 N.	F.
				Apex.....	29.5	—	37	8.0	59	No. 5	G., F.
				Lee.....	32.1	—	38	6.8	57	No. 5	G., F.
				Rescue.....	28.1	—	37	5.4	58	No. 5	G., F.
Necessary difference—2.1 bushels.											
DICK G. BROWN, McMAHON											
2C.....	5	4	B	Thatcher.....	21.1	—	—	—	56	No. 5	F.
				Apex.....	17.5	—	—	—	56	No. 6	B.F.
				Lee.....	17.5	—	—	—	55	No. 6	B.F.
				Rescue.....	18.0	—	—	—	56	No. 6	B.F.
Necessary difference—2.0 bushels.											
GORDON ARNOLD, SHAMROCK											
1A.....	5	5	A	Thatcher.....	33.1	114	40	—	59	No. 5	D.G., I.
				Apex.....	43.5	120	39	—	60	No. 5	D.G., I.
				Lee.....	41.2	123	38	—	59	No. 5	D.G., I.
				Rescue.....	29.6	119	41	—	58	No. 5	D.G., I.
Test damaged by lodging—yields not used in zone summaries.											
T. GLYN MORGAN, OLD WIVES											
1A.....	5	6	A	Thatcher.....	33.1	123	38	7.2	59	2 N.	—
				Apex.....	29.6	124	38	8.2	61	2 N.	S.G.
				Lee.....	29.7	123	38	7.6	59	3 N.	I.
				Rescue.....	26.9	123	38	8.8	61	2 N.	S.G.
Necessary difference—1.8 bushels.											
CYRIL D. McINTYRE, BOHARM											
2E.....	5	7	A	Thatcher.....	15.9	99	29	8.2	54	No. 5	G., I.
				Apex.....	13.9	100	29	7.2	57	4 N.	G., I.
				Lee.....	14.9	98	29	5.0	56	4 N.	—
				Rescue.....	14.3	100	30	9.8	57	4 N.	G., I.
No significant grain yield difference between varieties.											
JERROLD A. de la HEY, TUXFORD											
2E.....	5	8	A	Thatcher.....	40.8	115	37	9.0	62	2 N.	Bl.
				Apex.....	36.7	117	38	8.6	63	1 N.	—
				Lee.....	38.9	109	36	8.4	61	3 N.	I.
				Rescue.....	38.3	110	37	7.6	63	1 N.	—
No significant grain yield difference between varieties.											
DONALD G. NASH, EYEBROW											
2B.....	5	8	C	Thatcher.....	24.2	112	28	7.8	62	2 N.	S.F., I.
				Apex.....	21.2	112	28	7.6	62	4 N.	B.F., G.
				Lee.....	24.6	114	35	8.4	62	4 N.	B.F., G.
				Rescue.....	20.7	112	32	8.4	62	3 N.	F., I.
No significant grain yield difference between varieties.											
MELVIN F. BRADFORD, CENTRAL BUTTE											
1A.....	5	9	B	Thatcher.....	22.9	—	20	—	60	2 N.	S.G.
				Apex.....	22.3	—	20	—	61	1 N.	—
				Lee.....	21.4	—	20	—	60	2 N.	S.G.
				Rescue.....	20.2	—	19	—	62	1 N.	—
Necessary difference—1.5 bushels.											

Wheat Pool District 5—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per measured bushel	Com-mercial grades	Grading remarks
HENRY UNGER, ERFOLD											
1A.....	5	10	A	Thatcher.....	24.8	—	27	8.6	62	2 N.	I., G.
				Apex.....	22.4	—	27	9.2	64	2 N.	I., G.
				Lee.....	22.1	—	27	6.6	64	2 N.	I., G.
				Rescue.....	21.8	—	26	9.0	64	2 N.	I., G.

Necessary difference—1.8 bushels.

Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes

1A.....	5	9	A	Russell D. Hallborg, Halvorgate.
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WHEAT POOL DISTRICT 6

F. MELBOURNE PERRY, LEWVAN											
2E.....	6	1	A	Thatcher.....	25.6	101	28	8.8	63	3 N.	I.
				Apex.....	22.2	107	30	9.6	64	3 N.	I.
				Lee.....	23.5	97	30	8.6	63	3 N.	I.
				Rescue.....	21.4	103	31	8.4	64	3 N.	I.

Necessary difference—1.8 bushels.

EDWIN D. OLSON, LANG											
2E.....	6	1	B	Thatcher.....	25.8	107	24	8.0	61	3 N.	G., I.
				Apex.....	17.7	112	24	8.0	61	3 N.	G., I.
				Lee.....	26.2	110	25	7.0	61	3 N.	G., I.
				Rescue.....	26.4	109	26	8.0	62	3 N.	G., I.

Necessary difference—2.4 bushels.

ALVIN WESLOWSKI, DAVIN											
2A.....	6	2	A	Thatcher.....	12.5	—	—	8.8	54	No. 5	G., I.
				Apex.....	14.4	—	—	8.8	55	No. 5	G., I.
				Lee.....	13.2	—	—	8.6	56	4 N.	—
				Rescue.....	16.3	—	—	9.4	55	No. 5	G., I.

Necessary difference—1.8 bushels.

TONY R. THEAKER, WILCOX											
2E.....	6	3	A	Thatcher.....	38.4	—	36	9.0	61	3 N.	I.
				Apex.....	32.1	—	38	8.0	62	4 N.	I.
				Lee.....	33.2	—	34	10.0	59	4 N.	I.
				Rescue.....	35.7	—	36	9.0	61	3 N.	I.

No significant grain yield difference between varieties.

BEN W. KIRKPATRICK, TRUAX											
2A.....	6	4	A	Thatcher.....	19.6	—	33	10.0	58	2 N.	—
				Apex.....	18.4	—	34	10.0	62	3 N.	I.
				Lee.....	18.0	—	32	10.0	61	2 N.	S.I.
				Rescue.....	19.3	—	33	10.0	61	2 N.	S.I.

No significant grain yield difference between varieties.

KENNETH F. McKENZIE, BELBECK											
2E.....	6	5	A	Thatcher.....	28.7	114	38	10.0	63	1 N.	—
				Apex.....	27.1	117	38	10.0	63	1 N.	—
				Lee.....	29.6	114	38	5.0	63	1 N.	—
				Rescue.....	26.7	111	38	9.0	64	1 N.	—

No significant grain yield difference between varieties.

DICK LOWERY, ROWATT											
2E.....	6	7	B	Thatcher.....	18.7	128	35	7.4	57	4 N.	G., I.
				Apex.....	9.7	128	34	6.6	58	4 N.	G., I.
				Lee.....	13.5	128	33	6.6	57	4 N.	G., I.
				Rescue.....	14.0	128	36	7.2	59	4 N.	G., I.

Test damaged by livestock—yields not used in zone summaries.

DON G. SINCLAIR, FORT QU'APPELLE											
3C.....	6	9	A	Thatcher.....	26.6	—	30	8.0	61	2 N.	I.
				Apex.....	24.6	—	31	8.2	60	2 N.	I.
				Lee.....	23.6	—	31	9.0	61	2 N.	I.
				Redman.....	22.6	—	32	8.4	59	2 N.	I.

Necessary difference—1.8 bushels.

RAY J. KISTNER, DISLEY											
2B.....	6	10	A	Thatcher.....	23.6	—	—	—	56	4 N.	—
				Apex.....	20.6	—	—	—	61	3 N.	G., I.
				Lee.....	20.2	—	—	—	58	3 N.	I.
				Rescue.....	22.6	—	—	—	61	2 N.	I.

No significant grain yield difference between varieties.

Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes

2E.....	6	6	A	Gerald H. Waller, Drinkwater.
2E.....	6	7	A	Melita Pittendrigh, Regina.
3C.....	6	8	A	David C. Ferguson, Indian Head.

WHEAT POOL DISTRICT 7

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per meas-ured bushel	Com-mercial grades	Grading remarks
MERVIN PERCY, FAIRLIGHT											
3A.....	7	1	A	Thatcher.....	19.4	—	—	—	59	No. 5	F.
				Apex.....	17.5	—	—	—	58	No. 5	F.
				Lee.....	21.8	—	—	—	58	No. 5	F.
				Redman.....	18.8	—	—	—	58	No. 5	F.
Necessary difference—1.4 bushels.											
L. JACK LEMOINE, MOOSOMIN											
3B.....	7	2	A	Thatcher.....	27.9	—	—	—	63	2 N.	G., I.
				Apex.....	27.3	—	—	—	63	2 N.	G., I.
				Lee.....	25.8	—	—	—	62	2 N.	G., I.
				Redman.....	27.7	—	—	—	62	3 N.	G., I.
No significant grain yield difference between varieties.											
CLARENCE A. CONRAD, WAWOTA											
3A.....	7	3	A	Thatcher.....	26.8	100	33	10.0	63	3 N.	I.
				Apex.....	27.4	102	32	10.0	63	3 N.	I.
				Lee.....	27.2	101	33	10.0	63	3 N.	I.
				Redman.....	25.9	100	33	9.8	62	3 N.	I.
No significant grain yield difference between varieties.											
THOMAS W. HEWSON, LANGBANK											
3A.....	7	3	C	Thatcher.....	40.1	115	37	8.4	61	2 N.	I.
				Apex.....	32.9	116	39	7.0	62	2 N.	I., G.
				Lee.....	40.9	115	39	7.4	61	3 N.	Br., G., I.
				Redman.....	34.6	116	38	7.2	61	3 N.	Br., G., I.
Necessary difference—4.3 bushels.											
DENNIS D. HARTNELL, KIPLING											
3A.....	7	4	A	Thatcher.....	23.0	115	27	9.0	57	3 N.	—
				Apex.....	19.9	117	25	9.8	59	3 N.	I.
				Lee.....	23.1	115	28	9.6	60	3 N.	I.
				Redman.....	22.0	115	28	9.0	59	3 N.	I.
No significant grain yield difference between varieties.											
LORNE P. McDOUGALL, CORNING											
3A.....	7	5	A	Thatcher.....	18.6	—	—	—	62	3 N.	I.
				Apex.....	15.4	—	—	—	63	3 N.	I.
				Lee.....	16.7	—	—	—	61	3 N.	I.
				Redman.....	13.8	—	—	—	61	3 N.	I.
Necessary difference—2.7 bushels.											
ROBERT STRACHAN, PEEBLES											
3A.....	7	6	A	Thatcher.....	18.3	115	34	9.0	58	3 N.	W.
				Apex.....	16.4	115	34	9.0	60	3 N.	W.
				Lee.....	10.2	111	34	9.0	58	3 N.	W.
				Redman.....	11.0	115	34	9.0	57	3 N.	—
Test damaged by shattering—yields not used in zone summaries.											
HERVE BACHELU, KENDAL											
3A.....	7	6	B	Thatcher.....	22.9	—	25	—	62	2 N.	I.
				Apex.....	19.6	—	24	—	63	2 N.	I.
				Lee.....	19.2	—	24	—	63	2 N.	I.
				Redman.....	18.1	—	22	—	63	2 N.	I.
Necessary difference—1.2 bushels.											
R. JAMES HOOD, WOLSELEY											
3A.....	7	7	A	Thatcher.....	22.0	—	26	6.0	60	3 N.	I.
				Apex.....	18.9	—	26	5.0	62	3 N.	I.
				Lee.....	19.6	—	24	6.0	60	4 N.	F., I.
				Redman.....	17.0	—	26	6.0	59	3 N.	I.
Necessary difference—1.7 bushels.											
HARVEY G. HACK, ROCANVILLE											
3B.....	7	8	A	Thatcher.....	41.2	105	36	8.0	59	3 N.	I.
				Apex.....	36.8	106	38	9.0	62	3 N.	G., I.
				Lee.....	38.6	106	39	9.0	60	3 N.	I.
				Redman.....	36.3	104	37	10.0	59	3 N.	I.
No significant grain yield difference between varieties.											
GRANT W. PLEWES, SPY HILL											
3B.....	7	9	A	Thatcher.....	35.6	107	36	8.2	63	1 N.	—
				Apex.....	30.7	107	37	9.4	63	2 N.	S.G.
				Lee.....	37.9	113	39	8.2	63	2 N.	S.G.
				Redman.....	30.0	107	36	9.2	61	2 N.	S.G.
Necessary difference—2.6 bushels.											

Wheat Pool District 7—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per measured bushel	Com-mercial grades	Grading remarks
GERALDINE A. TOPINKA, ZENETA											
3C.....	7	10	A	Thatcher.....	25.9	—	39	8.4	58	3 N.	Bl. M.
				Apex.....	27.9	—	41	7.0	59	No. 5	B.F., G.
				Lee.....	32.0	—	38	9.4	59	No. 5	B.F.
				Redman.....	29.4	—	37	7.6	59	4 N.	F.
Necessary difference—2.8 bushels.											
LAWRENCE KULOVANY, ESTERHAZY											
3C.....	7	10	B	Thatcher.....	40.8	114	33	8.4	63	2 N.	S.I.
				Apex.....	36.6	114	33	8.2	63	3 N.	I.
				Lee.....	43.2	114	34	7.8	63	3 N.	I.
				Redman.....	42.1	114	34	7.8	61	3 N.	I.
No significant grain yield difference between varieties.											
FELIX J. STRADECKI, DUBUC											
3C.....	7	11	A	Thatcher.....	54.5	112	32	9.4	62	2 N.	S.G.
				Apex.....	47.0	123	34	9.4	62	2 N.	S.G.
				Lee.....	49.9	120	32	8.0	59	2 N.	—
				Redman.....	49.8	111	32	9.0	63	2 N.	S.G.
Necessary difference—3.8 bushels.											

WHEAT POOL DISTRICT 8

RODNEY V. HABERSTOCK, CHURCHBRIDGE											
3B.....	8	1	A	Thatcher.....	41.5	—	40	—	62	2 N.	S.G.
				Apex.....	40.2	—	41	—	63	2 N.	S.G.
				Lee.....	37.8	—	36	—	62	2 N.	S.G.
				Redman.....	41.0	—	38	—	61	2 N.	S.G.
No significant grain yield difference between varieties.											
ANDY S. ZRUDLO, WROXTON											
3B.....	8	1	B	Thatcher.....	41.8	—	—	—	57	4 N.	M.
				Apex.....	31.5	—	—	—	60	4 N.	M.
				Lee.....	26.4	—	—	—	58	No. 5	M., Spr.
				Redman.....	46.7	—	—	—	57	No. 5	M., Spr.
Test damaged—yields not used in zone summaries.											
ELIZABETH KELLY, SALTCOATS											
3B.....	8	2	A	Thatcher.....	19.0	—	—	—	59	3 N.	I., G.
				Apex.....	18.3	—	—	—	61	4 N.	G., F.
				Lee.....	19.5	—	—	—	62	No. 5	B.F., G.
				Redman.....	18.1	—	—	—	60	4 N.	F., G.
No significant grain yield difference between varieties.											
EDWIN MITRENGA, MELVILLE											
3C.....	8	3	A	Thatcher.....	17.7	120	24	8.0	57	3 N.	—
				Apex.....	16.4	120	24	8.0	59	2 N.	—
				Lee.....	18.0	120	20	7.4	59	3 N.	I.
				Redman.....	18.3	121	26	8.8	59	2 N.	—
No significant grain yield difference between varieties.											
GEORGE E. LAZURKO, WILLOWBROOK											
3C.....	8	4	A	Thatcher.....	16.7	110	34	7.0	58	3 N.	G., I.
				Apex.....	18.9	114	36	8.8	60	3 N.	G., I.
				Lee.....	23.1	113	35	9.2	61	3 N.	G., I.
				Redman.....	21.3	109	35	8.4	60	3 N.	G., I.
Necessary difference—2.7 bushels.											
D. GRAHAM DIXON, KAMSACK											
3B.....	8	5	C	Thatcher.....	32.9	—	—	—	59	No. 5	B.F.
				Apex.....	30.5	—	—	—	59	No. 6	B.F.
				Lee.....	32.3	—	—	—	58	No. 6	B.F.
				Redman.....	29.7	—	—	—	58	No. 6	B.F.
No significant grain yield difference between varieties.											
BILL SAMOHUK, RAMA											
3B.....	8	7	A	Thatcher.....	28.8	120	32	8.6	60	2 N.	G., I.
				Apex.....	34.7	121	37	9.8	63	3 N.	S.G., I.
				Lee.....	32.5	122	35	8.0	62	3 N.	I., M.
				Redman.....	29.5	120	33	8.0	61	3 N.	G., I.
Necessary difference—2.2 bushels.											
DONALD W. SNODGRASS, STURGIS											
3B.....	8	8	A	Thatcher.....	46.6	—	37	9.0	63	3 N.	G., I.
				Apex.....	48.1	—	40	9.0	64	3 N.	G., I.
				Lee.....	46.9	—	39	8.0	62	3 N.	G., I.
				Redman.....	45.4	—	38	9.0	63	3 N.	G., I.
No significant grain yield difference between varieties.											

Wheat Pool District 8—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
HARRY J. YAREMCHUK, HINCHLIFFE											
4A.....	8	8	B	Thatcher.....	54.2	—	—	—	62	No. 6	B.F., G.
				Apex.....	50.2	—	—	—	60	No. 6	B.F., G.
				Lee.....	51.9	—	—	—	60	No. 6	B.F., G.
				Redman.....	53.2	—	—	—	64	No. 6	B.F., G.
No significant grain yield difference between varieties.											
ALEXANDER KURULOK, STENEN											
3B.....	8	9	A	Thatcher.....	35.3	—	—	—	64	2 N.	I.
				Apex.....	34.0	—	—	—	64	2 N.	I.
				Lee.....	31.9	—	—	—	62	No. 6	B.F., G.
				Redman.....	31.8	—	—	—	64	2 N.	I.
No significant grain yield difference between varieties.											
WILLIAM F. MAKOHONIUK, ARRAN											
4A.....	8	10	A	Thatcher.....	54.3	—	—	—	57	No. 6	F., G.
				Apex.....	51.4	—	—	—	58	No. 6	F., G.
				Lee.....	50.0	—	—	—	57	No. 6	F., G.
				Redman.....	54.7	—	—	—	57	No. 6	F., G.
Samples bulked—yields not used in zone summaries.											
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes											
3B.....	8	5	A	C. Ted Penniston, Togo.							

WHEAT POOL DISTRICT 9

GERALD TKATCH, JASMIN											
3C.....	9	1	A	Thatcher.....	33.7	—	38	10.0	62	2 N.	I.
				Apex.....	24.4	—	36	10.0	62	2 N.	I., G.
				Lee.....	24.8	—	36	10.0	63	1 N.	—
				Redman.....	28.8	—	36	10.0	62	1 N.	—
Necessary difference—2.1 bushels.											
ERIC J. MINTZLER, LIPTON											
3C.....	9	2	A	Thatcher.....	18.9	—	28	10.0	57	3 N.	—
				Apex.....	16.0	—	25	10.0	62	2 N.	I.
				Lee.....	16.0	—	24	10.0	61	2 N.	I.
				Redman.....	15.2	—	28	10.0	57	3 N.	—
Necessary difference—1.6 bushels.											
RAYMOND COCKWILL, KELLIHER											
3C.....	9	3	A	Thatcher.....	22.0	120	—	—	61	No. 6	V.G., I.
				Apex.....	17.4	120	—	—	63	No. 6	V.G., I.
				Lee.....	21.0	119	—	—	61	No. 6	B.F., G., I.
				Redman.....	21.5	119	—	—	62	No. 6	V.G., I.
Necessary difference—1.7 bushels.											
DONALD K. WAGNER, EARL GREY											
3C.....	9	4	A	Thatcher.....	21.8	111	—	9.6	57	4 N.	Spr.
				Apex.....	20.3	112	—	9.6	60	3 N.	Spr.
				Lee.....	21.3	110	—	9.4	56	4 N.	—
				Redman.....	20.0	111	—	9.0	56	4 N.	—
No significant grain yield difference between varieties.											
ROBERT F. EDWARDS, NOKOMIS											
2B.....	9	6	A	Thatcher.....	33.4	112	42	8.0	58	2 N.	—
				Apex.....	32.2	117	43	8.0	61	2 N.	S.G.
				Lee.....	37.7	108	40	4.0	57	3 N.	—
				Rescue.....	30.8	112	43	8.0	59	2 N.	—
Necessary difference—3.4 bushels.											
REINHOLD R. WODTKE, PUNNICHY											
3C.....	9	7	A	Thatcher.....	25.9	—	30	10.0	58	3 N.	I.
				Apex.....	19.3	—	31	10.0	58	3 N.	I.
				Lee.....	23.3	—	32	10.0	58	4 N.	B.F.
				Redman.....	20.2	—	32	10.0	58	4 N.	B.F.
Necessary difference—1.4 bushels.											
KENNETH M. JOHNSON, WYNYARD											
3C.....	9	8	A	Thatcher.....	31.6	129	32	8.6	60	4 N.	G., I.
				Apex.....	28.4	131	32	8.2	61	4 N.	G., I.
				Lee.....	32.4	130	32	7.4	62	4 N.	G., I.
				Redman.....	28.5	129	32	8.8	60	3 N.	G., I.
Necessary difference—1.7 bushels.											

Wheat Pool District 9—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per measured bushel	Com- mercial grades	Grading remarks
TOM COOPER, WEST BEND											
3C.....	9	9	A	Thatcher.....	20.3	118	30	8.8	59	No. 6	G., I.
				Apex.....	15.3	119	30	8.2	61	No. 6	G., I.
				Lee.....	22.4	121	30	8.4	63	No. 6	G., I.
				Redman.....	20.9	116	30	6.4	61	No. 6	G., I.
Necessary difference—2.5 bushels.											
HAROLD TAYLOR, ELFROS											
3C.....	9	10	A	Thatcher.....	17.7	—	—	—	57	No. 6	G., I.
				Apex.....	17.2	—	—	—	59	No. 6	G., I.
				Lee.....	22.9	—	—	—	62	No. 6	G., I.
				Redman.....	19.1	—	—	—	60	No. 6	G., I.
Necessary difference—1.4 bushels.											
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes											
2B.....	9	5	A	Helen R. Kelln, Duval.							

WHEAT POOL DISTRICT 10

GENE P. SEARCY, HOLDFAST											
2B.....	10	1	A	Thatcher.....	17.4	—	—	—	60	2 N.	I.
				Apex.....	20.7	—	—	—	61	2 N.	I.
				Lee.....	16.7	—	—	—	61	2 N.	I.
				Rescue.....	22.6	—	—	—	60	2 N.	I.
Samples incomplete—yields not used in zone summaries.											
ALBERT G. HUNTER, RIVERHURST											
1A.....	10	2	A	Thatcher.....	15.2	—	34	—	58	3 N.	I.
				Apex.....	12.8	—	34	—	61	3 N.	I.
				Lee.....	14.3	—	30	—	59	3 N.	I.
				Rescue.....	13.7	—	33	—	60	3 N.	I.
Test damaged by hail—yields not used in zone summaries.											
CLARENCE ROBBERSTAD, BEECHY											
1A.....	10	3	A	Thatcher.....	41.9	—	39	—	58	No. 6	B.F., G.
				Apex.....	29.4	—	39	—	58	No. 6	B.F., G.
				Lee.....	36.5	—	39	—	57	No. 6	B.F., G.
				Rescue.....	39.4	—	39	—	58	No. 6	B.F., G.
Necessary difference—4.3 bushels.											
EARLE B. SOMERVILLE, MILDEN											
2F.....	10	4	A	Thatcher.....	28.8	—	26	4.6	59	4 N.	F., I.
				Apex.....	24.1	—	25	3.8	57	No. 6	B.F.
				Lee.....	25.3	—	24	4.8	58	No. 5	F.
				Rescue.....	24.6	—	24	5.4	58	No. 5	F.
Necessary difference—2.5 bushels.											
MORRIS W. RAFOSS, CONQUEST											
2B.....	10	5	A	Thatcher.....	14.8	—	25	6.0	59	2 N.	—
				Apex.....	13.4	—	22	6.0	60	2 N.	I.
				Lee.....	12.3	—	20	9.0	60	2 N.	I.
				Rescue.....	12.3	—	24	10.0	61	2 N.	I.
No significant grain yield difference between varieties.											
ROBERT G. BRISTOW, STRONGFIELD											
2B.....	10	6	A	Thatcher.....	22.8	117	40	9.8	62	3 N.	I.
				Apex.....	22.2	119	40	9.8	62	3 N.	I.
				Lee.....	21.9	122	39	9.0	61	4 N.	G., I.
				Rescue.....	18.2	118	41	9.4	62	3 N.	I.
No significant grain yield difference between varieties.											
RALPH E. JOHNSON, DAVIDSON											
2B.....	10	7	A	Thatcher.....	18.9	—	20	8.6	58	4 N.	G., I.
				Apex.....	16.4	—	18	7.8	59	4 N.	G., I.
				Lee.....	18.7	—	22	7.4	58	4 N.	G., I.
				Rescue.....	17.8	—	20	8.0	61	3 N.	I.
No significant grain yield difference between varieties.											
J. BERTAL SERVIS, RENOWN											
2B.....	10	8	A	Thatcher.....	37.8	—	—	8.0	58	4 N.	G., I.
				Apex.....	40.5	—	—	9.0	61	3 N.	V.G., I.
				Lee.....	59.1	—	—	10.0	60	3 N.	V.G., I.
				Rescue.....	30.7	—	—	6.0	57	3 N.	—
Thatcher damaged by shattering—yields not used in zone summaries.											

Wheat Pool District 10—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per meas-ured bushel	Com-mercial grades	Grading remarks
CHARLES G. DEEVER, KENASTON											
2B.....	10	9	A	Thatcher.....	21.0	118	26	8.6	59	4 N.	Br. G., I.
				Apex.....	19.0	117	27	7.8	62	4 N.	Br. G., I.
				Lee.....	18.4	118	25	5.2	60	3 N.	G., I.
				Rescue.....	17.8	118	26	6.4	61	3 N.	G., I.

No significant grain yield difference between varieties.

RICHARD M. CAMPBELL, TESSIER											
2B.....	10	10	A	Thatcher.....	18.9	119	36	6.0	59	2 N.	—
				Apex.....	17.8	119	36	3.0	60	1 N.	—
				Lee.....	17.8	117	32	2.0	61	1 N.	—
				Rescue.....	15.4	118	33	2.0	60	1 N.	—

Necessary difference—1.4 bushels.

WHEAT POOL DISTRICT 11

EDWIN C. KACOR, KYLE											
1A.....	11	1	A	Thatcher.....	29.3	—	—	—	61	3 N.	G., I.
				Apex.....	27.3	—	—	—	63	3 N.	G., I.
				Lee.....	29.8	—	—	—	60	3 N.	G., I.
				Rescue.....	27.1	—	—	—	63	2 N.	I.

No significant grain yield difference between varieties.

LEIF M. SONMOR, FORGAN											
2F.....	11	2	A	Thatcher.....	38.2	106	—	—	61	1 N.	—
				Apex.....	36.3	113	—	—	63	1 N.	—
				Lee.....	31.4	109	—	—	62	1 N.	—
				Rescue.....	31.7	106	—	—	63	1 N.	—

Necessary difference—2.2 bushels.

JAMES S. STUKINGS, MADISON											
2F.....	11	3	A	Thatcher.....	23.2	—	—	9.0	61	No. 6	B.F.
				Apex.....	22.8	—	—	9.0	61	No. 6	B.F.
				Lee.....	20.6	—	—	7.5	60	No. 6	B.F.
				Rescue.....	18.4	—	—	9.0	61	No. 6	B.F.

No significant grain yield difference between varieties.

MELVIN W. FOLLENSBEE, GLIDDEN											
1B.....	11	3	B	Thatcher.....	31.9	—	—	—	61	No. 5	G., B.F.
				Apex.....	34.2	—	—	—	61	No. 6	B.F.
				Lee.....	27.5	—	—	—	60	No. 6	B.F.
				Rescue.....	29.1	—	—	—	62	No. 6	B.F.

Necessary difference—2.2 bushels.

JAMES D. GOLIGHTLY, MANTARIO											
1B.....	11	4	A	Thatcher.....	39.9	111	34	7.0	64	2 N.	I.
				Apex.....	38.2	116	35	0.0	62	No. 6	G., B.F.
				Lee.....	32.6	116	32	0.0	65	1 N.	—
				Rescue.....	35.3	111	35	5.0	65	1 N.	—

Necessary difference—3.3 bushels.

LLOYD E. NEAR, PINKHAM											
1B.....	11	5	A	Thatcher.....	25.4	—	28	—	63	1 N.	—
				Apex.....	24.2	—	28	—	64	1 N.	—
				Lee.....	19.9	—	28	—	62	1 N.	—
				Rescue.....	19.0	—	28	—	63	1 N.	—

Necessary difference—2.0 bushels.

MARY PANKRATZ, FISKE											
1A.....	11	8	A	Thatcher.....	30.4	—	30	9.2	61	4 N.	G., F.
				Apex.....	29.7	—	31	7.8	62	4 N.	G., F.
				Lee.....	27.5	—	29	6.8	61	3 N.	F.
				Rescue.....	23.6	—	31	9.8	61	3 N.	F.

Necessary difference—1.6 bushels.

BERNIE BORS, McGEE											
1A.....	11	8	B	Thatcher.....	31.8	99	—	—	62	3 N.	F., G.
				Apex.....	33.0	108	—	—	62	4 N.	F., G.
				Lee.....	24.5	111	—	—	62	No. 5	F., G.
				Rescue.....	25.2	106	—	—	60	4 N.	F.

Necessary difference—4.1 bushels.

Wheat Pool District 11—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per measured bushel	Com-mercial grades	Grading remarks
ROY I. NEIL, COLEVILLE											
1A.....	11	9	A	Thatcher.....	30.6	—	34	8.2	61	No. 5	B.F., G.
				Apex.....	31.8	—	36	8.4	59	No. 6	B.F., G.
				Lee.....	25.4	—	32	8.6	59	No. 6	B.F., G.
				Rescue.....	26.7	—	35	6.6	60	No. 5	F.
Necessary difference—1.6 bushels.											
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes											
1B.....	11	4	B	Marvin M. Nunweiler, Laporte.							
2F.....	11	6	A	Ernest W. Rogerson, D'Arcy.							

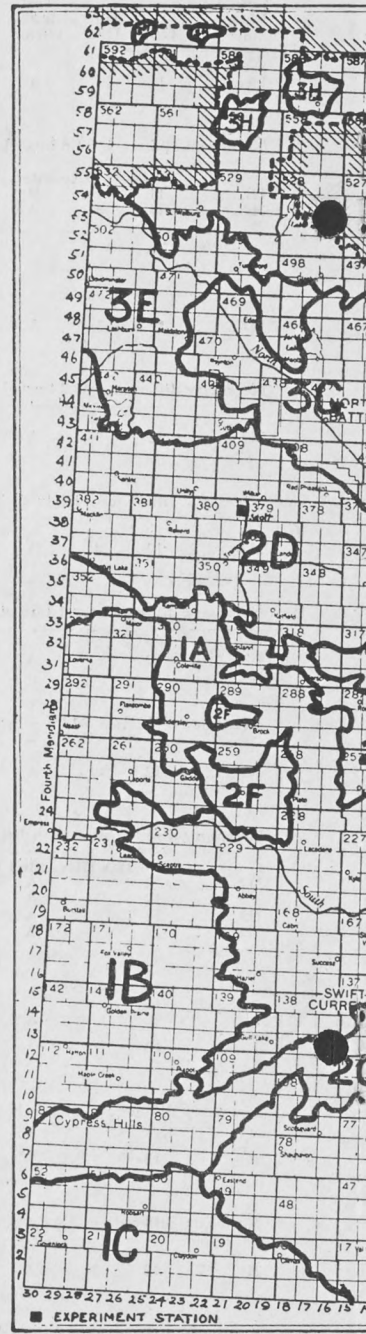
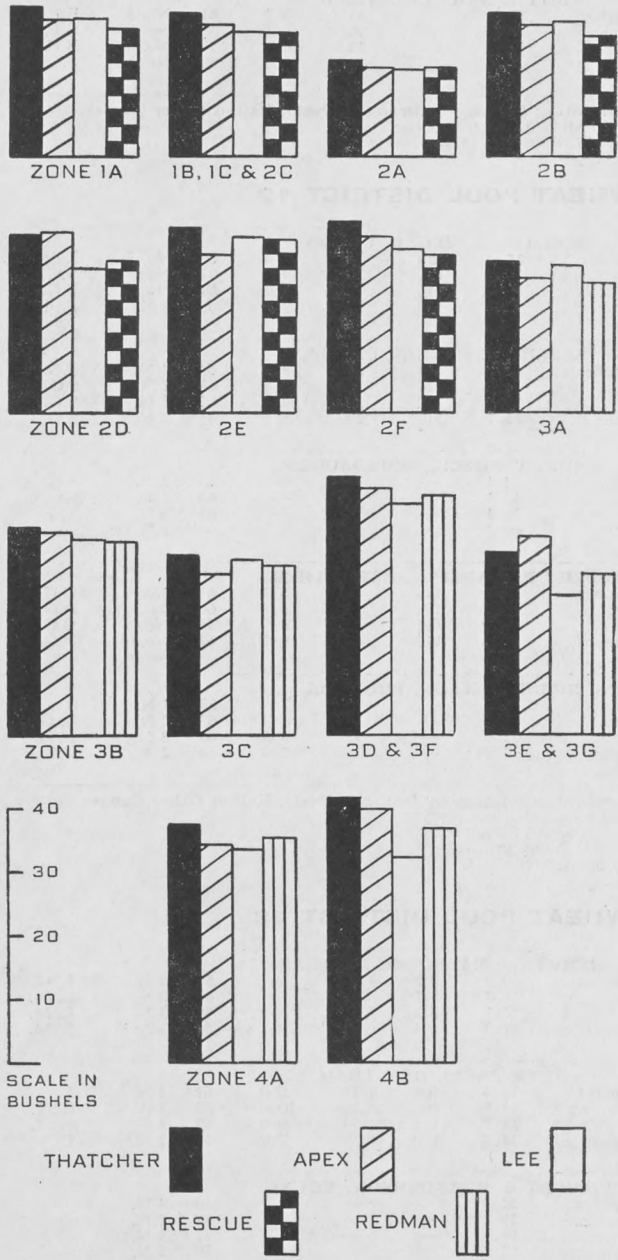
WHEAT POOL DISTRICT 12

NORMAN J. MEGER, CANDO											
2D.....	12	2	A	Thatcher.....	11.2	126	20	9.0	60	No. 5	I., V.G.
				Apex.....	11.2	126	20	9.0	61	No. 6	V.G., F.
				Lee.....	6.8	131	19	9.0	60	No. 6	V.G., F.
				Rescue.....	7.8	128	20	9.0	60	4 N.	F., I.
Necessary difference—1.7 bushels.											
ALBERT V. ULRICH, CAVELL											
2D.....	12	3	A	Thatcher.....	18.6	114	28	9.0	64	2 N.	S.G.
				Apex.....	21.0	122	33	6.4	63	2 N.	S.G.
				Lee.....	14.6	122	27	9.2	63	2 N.	S.G.
				Rescue.....	16.7	117	29	8.6	64	2 N.	S.G.
Necessary difference—1.5 bushels.											
ANDREW KOBLE, BROADACRES											
2D.....	12	4	A	Thatcher.....	34.1	—	35	—	63	2 N.	S.G.
				Apex.....	33.1	—	40	—	64	2 N.	S.G.
				Lee.....	26.1	—	32	—	63	2 N.	S.G.
				Rescue.....	30.7	—	37	—	64	1 N.	—
Necessary difference—2.1 bushels.											
ROBERT B. MARLING, CARRUTHERS											
3E.....	12	8	A	Thatcher.....	31.5	114	42	8.5	61	No. 6	D.G., F.
				Apex.....	35.8	114	42	8.5	60	No. 6	D.G., F.
				Lee.....	20.1	111	42	8.5	56	No. 6	D.G., F.
				Redman.....	28.4	112	42	8.5	61	No. 6	D.G., F.
Necessary difference—2.0 bushels.											
BILL E. NELSON, PRONGUA											
3G.....	12	10	A	Thatcher.....	34.1	—	34	7.8	63	2 N.	Bl., I.
				Apex.....	35.9	—	35	8.0	63	2 N.	I., G.
				Lee.....	23.6	—	33	8.6	62	2 N.	I., G.
				Redman.....	27.9	—	34	7.8	64	2 N.	I., G.
Necessary difference—2.5 bushels.											
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes											
2D.....	12	1	A	Lorne Irvine, Biggar.							
2D.....	12	5	A	Tony G. Kraft, Salvador.							
2D.....	12	6	A	Edwin J. Stang, Primate.							
2D.....	12	7	A	Maurice G. McLean, Unity.							

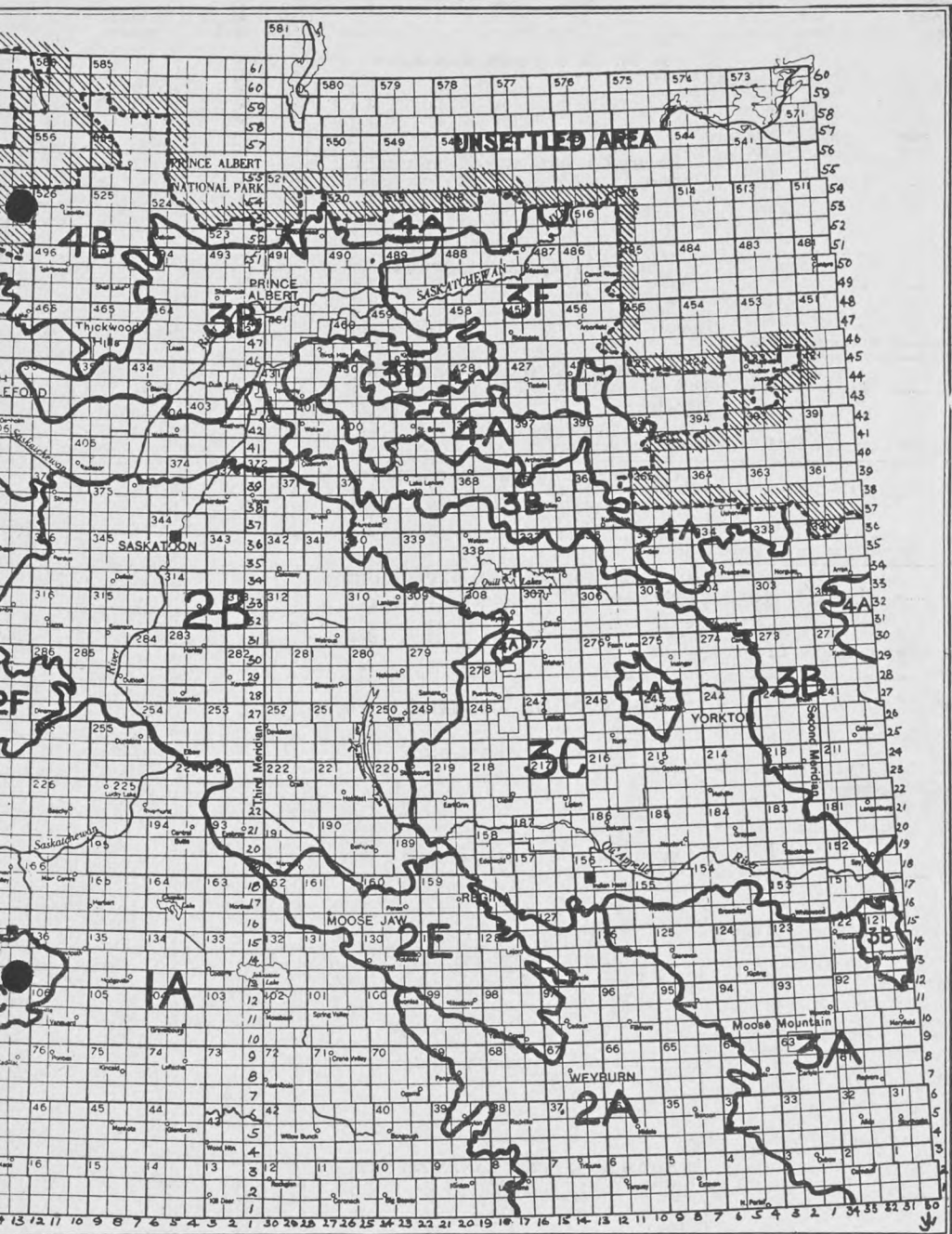
WHEAT POOL DISTRICT 13

MERVYN J. PAPROSKI, LANIGAN											
3C.....	13	1	A	Thatcher.....	30.9	100	—	—	58	3 N.	I., G.
				Apex.....	27.7	101	—	—	60	3 N.	I., M.
				Lee.....	27.1	101	—	—	58	3 N.	I., M.
				Redman.....	27.5	104	—	—	58	3 N.	I., M.
Necessary difference—1.9 bushels.											
RUTH EARIS, BAY TRAIL											
3C.....	13	1	B	Thatcher.....	38.4	106	27	8.0	61	2 N.	I.
				Apex.....	32.5	106	28	10.0	63	3 N.	G., I.
				Lee.....	34.8	106	30	9.0	62	3 N.	G., I.
				Redman.....	34.3	100	29	7.0	61	2 N.	I.
Necessary difference—2.0 bushels.											
WILBERT S. B. ANDERSON, YOUNG											
2B.....	13	2	A	Thatcher.....	22.2	—	—	—	56	4 N.	—
				Apex.....	21.2	—	—	—	59	2 N.	—
				Lee.....	19.3	—	—	—	57	3 N.	—
				Rescue.....	17.0	—	—	—	58	2 N.	—
Necessary difference—2.8 bushels.											

HISTOGRAMS SHOWING COMPARATIVE WHEAT YIELDS



Cereal Variety Zones of Saskatchewan



Wheat Pool District 13—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per measured bushel	Com- mercial grades	Grading remarks
H. BRUCE HAUGHN, KENASTON											
2B.....	13	3	A	Thatcher.....	28.8	101	30	8.0	58	3 N.	I., G.
				Apex.....	26.2	104	30	1.0	60	4 N.	B.F., I.
				Lee.....	26.2	104	30	9.0	59	4 N.	B.F., I.
				Rescue.....	22.2	104	30	8.0	60	3 N.	F., I.
Necessary difference—1.8 bushels.											
ARTHUR J. CALLAGHAN, BLUCHER											
2B.....	13	4	A	Thatcher.....	17.1	—	—	—	58	3 N.	I.
				Apex.....	17.2	—	—	—	59	2 N.	I.
				Lee.....	15.9	—	—	—	58	3 N.	I.
				Rescue.....	13.3	—	—	—	59	2 N.	I.
Necessary difference—,9 bushel.											
DEMPSEY SEDELNIK, STRUAN											
2D.....	13	7	A	Thatcher.....	48.2	—	33	8.8	63	2 N.	I.
				Apex.....	48.5	—	36	8.4	62	3 N.	I.
				Lee.....	43.2	—	33	9.8	61	3 N.	I.
				Rescue.....	39.9	—	34	9.0	61	3 N.	I.
Necessary difference—4.0 bushels.											
ALPHONSE SCHLOSSER, BREMEN											
3C.....	13	9	A	Thatcher.....	22.2	—	—	—	62	2 N.	Bl., I.
				Apex.....	22.9	—	—	—	62	2 N.	S.F.
				Lee.....	20.4	—	—	—	61	3 N.	F., I.
				Redman.....	21.3	—	—	—	61	2 N.	S.F., I.
No significant grain yield difference between varieties.											
ALVIN HESSDORFER, ST. BENEDICT											
3C.....	13	10	A	Thatcher.....	46.1	120	37	8.4	63	2 N.	I.
				Apex.....	45.2	123	38	8.2	64	2 N.	I.
				Lee.....	40.5	122	36	7.4	63	2 N.	I.
				Redman.....	39.4	120	36	8.2	63	2 N.	I.
Necessary difference—2.5 bushels.											
ALLEN de GOESBRIAND, DAYLESFORD											
3B.....	13	11	A	Thatcher.....	35.8	115	37	9.8	62	4 N.	G., I.
				Apex.....	38.0	117	42	9.8	62	No. 5	D.G., I.
				Lee.....	31.8	115	34	8.5	60	No. 6	D.G., I.
				Redman.....	34.1	113	38	9.6	61	No. 5	D.G., I.
Necessary difference—3.2 bushels.											

WHEAT POOL DISTRICT 14

JAMES N. WILSON, OKLA											
4A.....	14	1	A	Thatcher.....	7.0	—	—	—	56	No. 6	V.G., F.
				Apex.....	14.1	—	—	—	57	No. 6	V.G., F.
				Lee.....	8.7	—	—	—	56	No. 6	V.G., F.
				Redman.....	7.4	—	—	—	57	No. 6	V.G., F.
Test damaged by shattering and birds—yields not used in zone summaries.											
LAWRENCE R. PARKER, SILVER PARK											
4A.....	14	3	A	Thatcher.....	25.0	135	—	—	60	No. 6	B.F., G.
				Apex.....	22.0	135	—	—	59	No. 6	B.F., G.
				Lee.....	20.8	132	—	—	58	No. 6	B.F., G.
				Redman.....	23.8	135	—	—	58	No. 6	B.F., G.
No significant grain yield difference between varieties.											
ALLAN A. COTE, SYLVANIA											
4A.....	14	4	D	Thatcher.....	39.0	—	—	—	59	3 N.	F., I.
				Apex.....	35.4	—	—	—	59	4 N.	F., M.
				Lee.....	35.3	—	—	—	56	No. 5	B.F., M.
				Redman.....	35.0	—	—	—	57	No. 5	B.F., M.
Necessary difference—2.5 bushels.											
DAVID A. NILSEN, KINLOCH											
3B.....	14	5	B	Thatcher.....	7.7	—	35	—	57	No. 6	B.F.
				Apex.....	8.1	—	47	—	57	No. 6	B.F.
				Lee.....	13.2	—	33	—	55	No. 6	B.F.
				Redman.....	9.5	—	32	—	56	No. 6	B.F.
Test damaged by shattering—yields not used in zone summaries.											
NORMAN S. UFFELMAN, MELFORT											
3D.....	14	8	A	Thatcher.....	42.6	119	36	9.2	64	2 N.	S.G.
				Apex.....	44.0	119	40	9.4	64	3 N.	G., I.
				Lee.....	41.1	120	36	8.6	63	3 N.	G., I.
				Redman.....	41.8	121	36	9.0	63	2 N.	S.G.
No significant grain yield difference between varieties.											

Wheat Pool District 14—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per measured bushel	Com-mercial grades	Grading remarks
BARBARA ANN SOUTH, WHITOME											
3D.....	14	9	A	Thatcher.....	61.2	107	43	8.0	64	4 N.	G., I.
				Apex.....	57.4	115	45	6.0	64	4 N.	G., I.
				Lee.....	59.2	112	43	7.0	63	4 N.	G., I.
				Redman.....	60.2	107	43	8.0	63	4 N.	G., I.

No significant grain yield difference between varieties.

MORRIS ZWOZDESKY, AYLSHAM											
3F.....	14	10	A	Thatcher.....	43.5	111	36	—	61	3 N.	F.
				Apex.....	38.9	111	38	—	61	4 N.	F.
				Lee.....	41.7	111	40	—	59	4 N.	F.
				Redman.....	39.0	118	38	—	59	4 N.	F.

No significant grain yield difference between varieties.

Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes

4A.....	14	4	A	Erwin F. Schweitzer, Algrove.
4A.....	14	4	E	R. Jack Evans, Lightwoods.
4A.....	14	5	A	Bernard A. Renneberg, Kinloch.
3F.....	14	9	B	Ronald F. Lindskog, Fairy Glen.
3F.....	14	11	A	Thomas Heisler, Smoky Burn.

WHEAT POOL DISTRICT 15

LORNE N. PAYNE, MESKANAW											
4A.....	15	1	A	Thatcher.....	31.8	—	30	—	61	2 N.	S.G.
				Apex.....	29.8	—	30	—	63	3 N.	G., I.
				Lee.....	26.5	—	30	—	62	3 N.	G., I.
				Redman.....	29.2	—	30	—	61	3 N.	G., I.

Necessary difference—2.4 bushels.

JOHN A. LUKAN, HOEY											
3D.....	15	2	A	Thatcher.....	32.9	—	—	—	61	2 N.	Bl.
				Apex.....	33.7	—	—	—	63	2 N.	I.
				Lee.....	23.4	—	—	—	61	3 N.	Bl., G., I.
				Redman.....	25.6	—	—	—	61	2 N.	I., Bl.

Necessary difference—3.5 bushels.

MAXWELL L. DAVIES, RED DEER HILL											
3D.....	15	3	A	Thatcher.....	23.0	118	40	7.6	55	No. 5	F.
				Apex.....	20.1	118	40	8.0	53	No. 5	F.
				Lee.....	16.7	118	40	7.6	48	Feed	—
				Redman.....	22.2	118	40	7.8	52	No. 6	F.

Necessary difference—3.5 bushels.

JOHNNY A. ZACHARIAS, ROSTHERN											
3B.....	15	4	A	Thatcher.....	14.7	—	—	—	62	2 N.	S.G.
				Apex.....	15.4	—	—	—	62	3 N.	I.
				Lee.....	10.2	—	—	—	61	3 N.	I.
				Redman.....	12.4	—	—	—	61	3 N.	I.

Necessary difference—1.1 bushels.

IRVIN W. JUNG, MONT NEBO											
4B.....	15	7	A	Thatcher.....	60.8	107	—	—	61	2 N.	S.G.
				Apex.....	58.3	108	—	—	59	2 N.	—
				Lee.....	49.9	110	—	—	58	2 N.	—
				Redman.....	50.9	109	—	—	59	2 N.	—

Necessary difference—2.7 bushels.

ALEX DENYSUIK, HENRIBOURG											
3B.....	15	9	A	Thatcher.....	33.4	—	39	—	60	3 N.	I.
				Apex.....	35.4	—	41	—	61	3 N.	I.
				Lee.....	32.5	—	40	—	61	3 N.	I.
				Redman.....	31.5	—	38	—	59	3 N.	I.

No significant grain yield difference between varieties.

WALTER CIONA, FOXFORD											
3B.....	15	10	A	Thatcher.....	37.2	—	45	10.0	63	1 N.	—
				Apex.....	31.3	—	48	7.0	63	1 N.	—
				Lee.....	28.4	—	45	9.0	63	4 N.	G., I.
				Redman.....	34.0	—	46	10.0	64	1 N.	—

Necessary difference—3.8 bushels.

Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes

4B.....	15	6	A	Lawrence P. Smith, Shell Lake.
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WHEAT POOL DISTRICT 16

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per meas-ured bushel	Com-mercial grades	Grading remarks
WES SCHMIDT, RUDELL											
3G.....	16	1	A	Thatcher.....	24.2	105	15	—	62	2 N.	I.
				Apex.....	24.5	104	17	—	62	2 N.	I.
				Lee.....	20.2	104	15	—	62	2 N.	I., S.G.
				Redman.....	19.5	104	15	—	62	2 N.	I.
Necessary difference—3.0 bushels.											
GEORGE M. SYMCHYCH, HAFFORD											
3B.....	16	2	A	Thatcher.....	29.1	—	—	—	60	3 N.	I.
				Apex.....	27.5	—	—	—	60	3 N.	I.
				Lee.....	23.5	—	—	—	61	3 N.	I.
				Redman.....	25.2	—	—	—	60	3 N.	I.
Necessary difference—1.5 bushels.											
FREDERICK G. WALKER, HAMLIN											
3G.....	16	3	A	Thatcher.....	32.3	—	39	9.0	61	3 N.	F.
				Apex.....	37.2	—	40	10.0	62	3 N.	F.
				Lee.....	26.1	—	30	8.0	60	4 N.	C., F.
				Redman.....	25.6	—	39	9.0	61	4 N.	C., F.
Test damaged by shattering—yields not used in zone summaries.											
KEN W. WESSON, MAIDSTONE											
3E.....	16	5	B	Thatcher.....	38.2	119	37	10.0	65	1 N.	—
				Apex.....	42.1	124	38	10.0	65	2 N.	G., I.
				Lee.....	29.9	124	36	10.0	62	4 N.	B.F., G.
				Redman.....	35.2	118	37	10.0	64	2 N.	I.
Necessary difference—2.4 bushels.											
BENNY LEER, BUTTE STE. PIERRE											
3E.....	16	7	A	Thatcher.....	16.7	113	34	9.0	64	1 N.	—
				Apex.....	18.0	117	36	9.0	64	1 N.	—
				Lee.....	16.2	109	28	10.0	63	2 N.	S.G.
				Redman.....	16.1	106	32	7.8	64	1 N.	—
No significant grain yield difference between varieties.											
ARNOLD EPP, FAIRHOLME											
4B.....	16	9	A	Thatcher.....	31.4	—	32	10.0	57	No. 6	B.F., G.
				Apex.....	29.5	—	32	10.0	57	No. 6	B.F., G.
				Lee.....	25.9	—	31	10.0	56	No. 6	B.F.
				Redman.....	31.1	—	33	10.0	58	No. 6	B.F.
Necessary difference—2.9 bushels.											
WALTER ILNESKY, RANGER											
4B.....	16	10	A	Thatcher.....	49.0	119	48	10.0	62	4 N.	F., G.
				Apex.....	47.3	120	47	10.0	63	4 N.	F., G.
				Lee.....	35.2	125	45	10.0	58	No. 6	B.F., G.
				Redman.....	45.5	115	48	10.0	63	4 N.	F., G.
Necessary difference—5.1 bushels.											
HUBERT HEESING, PEERLESS											
3H.....	16	11	B	Thatcher.....	25.4	105	31	7.4	64	1 N.	—
				Apex.....	24.7	105	33	7.6	64	2 N.	S.G.
				Lee.....	18.1	104	29	8.4	61	4 N.	S.B.P., G., I.
				Redman.....	20.4	106	31	7.6	63	1 N.	—
Necessary difference—2.2 bushels.											
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes											
3G.....	16	5	A	Ken W. Harman, Paynton.							
3E.....	16	6	A	John Patmore, Greenstreet.							
3G.....	16	10	B	Harvey K. Salisbury, Mullingar.							
3H.....	16	11	A	Lawrence Bishop, South Makwa.							

OAT TESTS

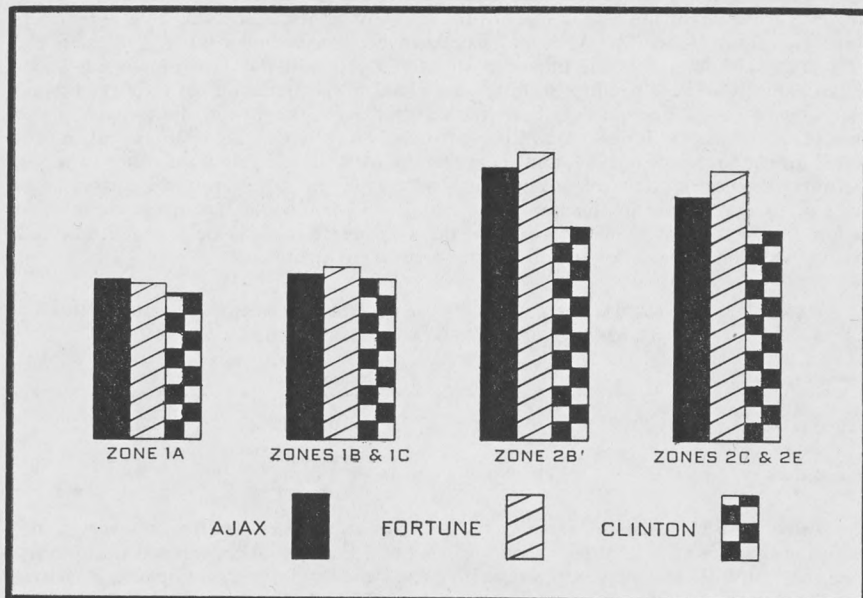
A total of forty-six oat tests were undertaken in 1951, and these were conducted in the open plains area comprised by Cereal Variety Zones 1A to 2F (see Cereal Variety Zone map, page 35). The varieties Ajax, Fortune, and Clinton were tested.

DESCRIPTION OF VARIETIES

Ajax was originated at the Dominion Laboratory of Cereal Breeding at Winnipeg from the cross Victory x Hajira, made in 1930. Ajax is an early variety with fairly strong straw of medium length. It is resistant to most but not all races of stem rust. It has moderate resistance to leaf rust and smuts. It yields well in most areas of the province.

Fortune was originated at the Field Husbandry Department, University of Saskatchewan, Saskatoon, from the cross Victory x V.R.M.V. The latter strain was originated by the United States Department of Agriculture from the double cross (Victoria x Richland) x (Markton x Victory). Fortune is resistant to most but not all races of stem rust, is moderately susceptible to leaf rust and is resistant to smut. It is a late, high yielding variety with tall, medium-strong straw.

Clinton was originated in Iowa from the cross D69 x Bond. D69 was developed from a cross between Richland and Russian Green. Clinton is an early maturing variety, and has high bushel weight and strong straw. It has resistance to rusts and smuts. Clinton has not yielded particularly well in tests conducted in Saskatchewan to date. It is licensed for sale in Canada.



Histograms showing comparative oat yields by cereal variety zones (see map page 35)

GRAIN YIELD

An average of all tests shows that **Fortune** produced the highest yields. It was closely followed by **Ajax**, but both Fortune and Ajax outyielded **Clinton** by a considerable margin.

Generally, the yield differences between **Fortune** and **Ajax** in the individual zones were not of a major nature. **Ajax** outyielded the other varieties in Zone 1A and ranked second in the other zones.

Fortune placed first in yield in Zone Group 1B and 1C, 2B, and 2C and 2E. It was second in Zone 1A.

Clinton was outyielded by both of the other varieties in every zone.

**TABLE No. 24.—AVERAGE YIELDS IN BUSHELS PER ACRE
SUMMARIZED BY CEREAL VARIETY ZONES OR GROUPED ZONES**

Cereal Variety Zone	No. of Satisfactory Tests	Ajax	Fortune	Clinton	Necessary Difference in Bushels
1A.....	14	44.8	43.7	40.5	N.S.
1B and 1C.....	4	46.3	48.6	45.0	N.S.
2A.....	*1				
2B.....	5	76.1	80.7	59.6	N.S.
2D.....			No yield results available.		
2C and 2E.....	4	68.0	75.5	59.0	N.S.

N.S.—No significant grain yield difference between varieties.

*Note.—As a single test is insufficient to provide reliable information for a zone of this size, the yield results were not included in the above analysis.

Past Performance and Official Recommendations

Until 1951 **Ajax** had not been included in Wheat Pool tests in this part of the province since 1942. At that time it showed considerable promise, and has since become well established as one of the best varieties for use throughout most of the open plains area. It has given excellent results in other official testing projects during recent years and is officially recommended for Cereal Variety Zones 1A, 1B, 1C, 2A, 2B, 2C, 3E and 3G. **Ajax** is replaced by **Exeter** in the recommended list for Zones 2D, 2E and 2F of the open plains area, and also in most of the parkland zones, designated by the numbers three and four. Generally, **Ajax** and **Fortune** produced similar yield results in the 1951 tests, although **Fortune** appeared slightly superior in the dark brown soil Zones 2B, 2C and 2E. These results substantiate official tests carried out in recent years, on the basis of which **Fortune** has been recommended for use in all of the open plains area (Cereal Variety Zones 1A to 2F), with the exception of Zone 2E. **Clinton** was tested for the first time in 1951, and was generally lower in yield than the other varieties. Definite recommendations regarding this variety will not be made until further tests are carried out. While it appears likely that it will not equal the other varieties in yielding ability, **Clinton** matures several days earlier than **Ajax** or **Fortune** and this feature is of considerable importance under certain circumstances.

**TABLE No. 25.—AVERAGE NUMBER OF DAYS FROM SEEDING TO RIPENING
SUMMARIZED BY CEREAL VARIETY ZONES**

Cereal Variety Zone	Ajax	Fortune	Clinton
1A.....	93.9	98.4	90.5
1B and 1C.....	97.0	96.0	93.5
2B.....	98.0	100.0	93.5
2D.....		No results available.	
2C and 2E.....	96.3	98.7	92.3

Table No. 25. **Clinton** ripened earlier than the other varieties in every zone, maturing from two to eight days ahead of **Ajax** and **Fortune**. **Ajax** was second in every zone except the 1B and 1C group, where it ripened one day later than **Fortune**. **Fortune** was the last to reach maturity in all zones except 1B and 1C.

**TABLE No. 26.—AVERAGE HEIGHT OF PLANTS IN INCHES
SUMMARIZED BY CEREAL VARIETY ZONES**

Cereal Variety Zone	Ajax	Fortune	Clinton
1A.....	30.2	30.6	27.9
1B and 1C.....	29.0	28.5	28.0
2B.....	36.8	36.3	33.3
2D.....	35.0	36.0	28.0
2C and 2E.....	36.3	37.7	32.7

Table No. 26. **Ajax** and **Fortune** were approximately equal in height. **Clinton** was shorter in straw than the other varieties in every zone.

**TABLE No. 27.—AVERAGE STRAW STRENGTH OF PLANTS
ON THE BASIS 10 (STRONG) — 0 (WEAK)
SUMMARIZED BY CEREAL VARIETY ZONES**

Cereal Variety Zone	Ajax	Fortune	Clinton
1A.....	8.1	8.7	8.8
1B and 1C.....	6.9	7.3	10.0
2B.....	9.3	8.8	9.5
2D.....	10.0	10.0	10.0
2C and 2E.....	9.0	10.0	8.8

Table No. 27. **Clinton** excelled in straw strength in every zone, with the exception of Zone Group 2C and 2E. **Fortune** was second in straw strength on an average basis and **Ajax** placed third.

**TABLE No. 28.—AVERAGE WEIGHT PER MEASURED BUSHEL
SUMMARIZED BY CEREAL VARIETY ZONES**

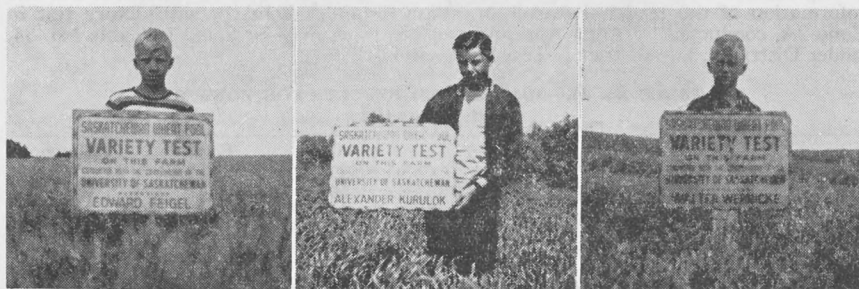
Cereal Variety Zone	Ajax	Fortune	Clinton
1A.....	32.7	33.3	35.0
1B and 1C.....	34.0	34.0	35.8
2B.....	35.3	35.2	38.0
2D.....	36.0	37.0	36.0
2C and 2E.....	35.8	36.3	37.0

Table No. 28. **Clinton** was superior in bushel weight to the other varieties. The difference between **Fortune** and **Ajax** was slight but **Fortune** weighed heavier than **Ajax** on an average basis.

**TABLE No. 29.—COMMERCIAL GRADES IN PERCENTAGE
(ZONES 1A TO 2E)**

Variety	1 C.W.	2 C.W.	3 C.W.	1 Feed	2 Feed	3 Feed
	%	%	%	%	%	%
Ajax.....	—	5.7	25.7	25.7	31.4	11.5
Fortune.....	—	8.6	25.7	28.6	34.3	2.8
Clinton.....	5.7	20.0	22.9	31.4	20.0	—

Table No. 29. On the basis of its slightly higher bushel weight, **Clinton** graded better than the other varieties. **Fortune** and **Ajax** were practically equal in grading ability.



Variety test supervisors Edward Feigel, Dysart (left); Alexander Kurulok, Stenen (centre); and Walter Wernicke, Cadillac (right)

SUMMARIZATION ACCORDING TO CEREAL VARIETY ZONES

TABLE No. 30.—SUMMARIZED RESULTS FOR ZONE 1A
(14 satisfactory tests)

	Ajax	Fortune	Clinton
Yield in bushels per acre.....	44.8	43.7	40.5
Days from seeding to ripening.....	93.9	98.4	90.5
Height of plants in inches.....	30.2	30.6	27.9
Straw strength (maximum of 10).....	8.1	8.7	8.8
Bushel weight in pounds.....	32.7	33.3	35.0
Commercial grades in percentage:			
1 C.W.....	—	—	6.2
2 C.W.....	6.2	12.5	18.7
3 C.W.....	12.5	25.0	25.0
1 Feed.....	18.7	18.8	18.8
2 Feed.....	43.8	37.5	31.3
3 Feed.....	18.8	6.2	—

No significant grain yield difference between varieties.

Table No. 30. **Ajax** was high in yield but was slightly weaker in straw and lower in bushel weight than the other varieties.

Fortune was second in yield and exceeded the other varieties in height. It ripened late but proved satisfactory in other characteristics.

Clinton was low in yield and had short, strong straw. It ripened considerably earlier than the other varieties, and was high in bushel weight and grading ability.

TABLE No. 31.—SUMMARIZED RESULTS FOR ZONE GROUP 1B AND 1C
(4 satisfactory tests)

	Ajax	Fortune	Clinton
Yield in bushels per acre.....	46.3	48.6	45.0
Days from seeding to ripening.....	97.0	96.0	93.5
Height of plants in inches.....	29.0	28.5	28.0
Straw strength (maximum of 10).....	6.9	7.3	10.0
Bushel weight in pounds.....	34.0	34.0	35.8
Commercial grades in percentage:			
2 C.W.....	16.7	16.7	16.7
3 C.W.....	33.3	16.7	33.3
1 Feed.....	—	16.6	16.7
2 Feed.....	33.3	50.0	33.3
3 Feed.....	16.7	—	—

No significant grain yield difference between varieties.

Table No. 31. **Fortune** outyielded the other varieties and was satisfactory in other characteristics.

Ajax was second in yield. It produced longer but weaker straw than Fortune or Clinton. Ajax was later than the other varieties in ripening.

Clinton was low in yield, but ripened early and had strong straw. It excelled in bushel weight and grades.

ZONE 2A

Because of unfavorable weather conditions and other causes all but one of the oat tests in Zone 2A proved unsatisfactory. As the results of a single test are insufficient to represent a zone of this size, the analysis for Zone 2A has been omitted. For the information of the reader, however, the data obtained from the satisfactory test in Zone 2A, conducted by Anna Appelquist of Neptune, may be found in Table No. 34, under District 2, Sub-district 1, Test Designation B.

TABLE No. 32.—SUMMARIZED RESULTS FOR ZONE 2B
(5 satisfactory tests)

	Ajax	Fortune	Clinton
Yield in bushels per acre.....	76.1	80.7	59.6
Days from seeding to ripening.....	98.0	100.0	93.5
Height of plants in inches.....	36.8	36.3	33.3
Straw strength (maximum of 10).....	9.3	8.8	9.5
Bushel weight in pounds.....	35.3	35.2	38.0
Commercial grades in percentage:			
1 C.W.....	—	—	16.7
2 C.W.....	—	—	33.3
3 C.W.....	50.0	33.4	—
1 Feed.....	33.3	33.3	50.0
2 Feed.....	16.7	33.3	—

No significant grain yield difference between varieties.

Table No. 32. **Fortune** was high in yield but ripened late and had weaker straw than the other varieties.

Ajax was second in yield, exceeded the other varieties in height, and proved satisfactory in other characteristics.

Clinton was low in yield and comparatively short in straw. It ripened considerably earlier than Fortune and Ajax, produced strong straw, and excelled in bushel weight and grades.

TABLE No. 33.—SUMMARIZED RESULTS FOR ZONE GROUP 2C AND 2E
(4 satisfactory tests)

	Ajax	Fortune	Clinton
Yield in bushels per acre.....	68.0	75.5	59.0
Days from seeding to ripening.....	96.3	98.7	92.3
Height of plants in inches.....	36.3	37.7	32.7
Straw strength (maximum of 10).....	9.0	10.0	8.8
Bushel weight in pounds.....	35.8	36.3	37.0
Commercial grades in percentage:			
2 C.W.....	—	—	25.0
3 C.W.....	50.0	50.0	25.0
1 Feed.....	50.0	50.0	50.0

No significant grain yield difference between varieties.

Table No. 33. **Fortune** outyielded the other varieties, and had long, strong straw. It ripened late but was satisfactory in other characteristics.

Ajax placed second in yield. Although slightly lower in bushel weight than the other varieties, Ajax gave a generally satisfactory performance.

Clinton was low in yield and produced short straw. It ripened early, however, had good bushel weight and graded well.



William Welter, Broadacres, and his oat variety test

TABLE No. 34

Individual Summarized Results of All Tests — Oats

WHEAT POOL DISTRICT 1

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per meas-ured bushel	Com-mercial grades	Grading remarks
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes											
2A.....	1	6	B	Franklin Frijouf, Macoun.							
2A.....	1	9	B	Louis Richaud Jr., Forget.							

WHEAT POOL DISTRICT 2

ANNA E. APPELQUIST, NEPTUNE											
2A.....	2	1	B	Ajax.....	48.1	94	35	10.0	30	2 Feed	—
				Fortune.....	45.9	96	38	10.0	30	2 Feed	—
				Clinton.....	56.5	92	33	10.0	34	3 C.W.	—
No significant grain yield difference between varieties.											
VERNON WEERES, MAXSTONE											
1A.....	2	4	C	Ajax.....	27.3	—	—	—	31	2 Feed	—
				Fortune.....	25.7	—	—	—	34	3 C.W.	—
				Clinton.....	21.0	—	—	—	32	2 Feed	—
No significant grain yield difference between varieties.											
LEO H. McKEE, STRATHALLEN											
1A.....	2	5	B	Ajax.....	41.3	103	—	—	34	2 Feed	M., W.S.
				Fortune.....	38.4	96	—	—	34	2 Feed	M., W.S.
				Clinton.....	32.5	96	—	—	34	2 Feed	M., W.S.
No significant grain yield difference between varieties.											

ARTHUR H. BOND, MELAVAL											
1A.....	2	6	B	Ajax.....	34.2	89	28	8.0	30	2 Feed	—
				Fortune.....	31.3	88	28	7.0	29	2 Feed	—
				Clinton.....	35.9	86	28	9.0	33	2 Feed	—
No significant grain yield difference between varieties.											
RODNEY E. DAHLMAN, READLYN											
1A.....	2	8	B	Ajax.....	50.5	94	29	—	33	2 Feed	—
				Fortune.....	49.9	94	33	—	34	3 C.W.	—
				Clinton.....	49.1	94	32	—	38	1 C.W.	—
No significant grain yield difference between varieties.											
CARL LUEBKE, DAHINDA											
1A.....	2	9	C	Ajax.....	43.2	85	26	9.0	33	3 Feed	M., W.S.
				Fortune.....	52.0	92	24	9.0	36	1 Feed	M., W.S.
				Clinton.....	42.4	83	24	9.0	37	1 Feed	M., W.S.
No significant grain yield difference between varieties.											

ALBERT E. WEBB, AMULET											
1A.....	2	10	B	Ajax.....	15.5	89	26	8.8	25	3 Feed	—
				Fortune.....	16.3	90	23	8.5	28	2 Feed	—
				Clinton.....	20.8	86	24	9.0	31	2 Feed	—
Necessary difference—2.5 bushels.											

WHEAT POOL DISTRICT 3

LEON C. GILBERTSON, FRONTIER											
1C.....	3	4	B	Ajax.....	17.8	99	28	8.0	26	3 Feed	—
				Fortune.....	16.6	99	26	9.3	28	2 Feed	—
				Clinton.....	26.6	99	27	10.0	31	2 Feed	—
No significant grain yield difference between varieties.											
ROGER C. JOHNSON, EASTEND											
1C.....	3	6	B	Ajax.....	46.5	—	—	—	33	2 Feed	—
				Fortune.....	34.1	—	—	—	34	1 Feed	G.
				Clinton.....	28.2	—	—	—	34	1 Feed	G.
Test damaged—yields not used in zone summaries.											

Wheat Pool District 3—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per meas-ured bushel	Com-mercial grades	Grading remarks
WALTER H. WERNICKE, CADILLAC											
1A.....	3	9	B	Ajax.....	37.5	—	27	8.8	36	1 Feed	G.
				Fortune.....	38.9	—	24	9.0	35	1 Feed	G.
				Clinton.....	33.9	—	25	8.5	36	1 Feed	G.
No significant grain yield difference between varieties.											

DONALD L. TURGEON, KINCAID											
1A.....	3	10	B	Ajax.....	50.9	88	26	10.0	30	2 Feed	—
				Fortune.....	44.8	104	30	10.0	29	2 Feed	—
				Clinton.....	41.7	86	24	10.0	35	3 C.W.	—
No significant grain yield difference between varieties.											

Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes

1A.....	3	2	B	Wesley G. Orr, Broncho.
1C.....	3	5	B	Peder L. Wenaas, Robsart.
1A.....	3	7	B	Jack B. Nielson, Eastend.

WHEAT POOL DISTRICT 4

SHIRLEY A. MOCH, HATTON											
1B.....	4	2	C	Ajax.....	71.2	—	—	—	34	3 C.W.	—
				Fortune.....	73.8	—	—	—	33	2 Feed	—
				Clinton.....	74.1	—	—	—	38	2 C.W.	S.G.
No significant grain yield difference between varieties.											

CAROLINE J. STERN, WYMARK											
2C.....	4	3	C	Ajax.....	58.9	—	—	—	34	1 Feed	G.
				Fortune.....	65.5	—	—	—	36	1 Feed	G., I.
				Clinton.....	45.5	—	—	—	36	1 Feed	G., I.
No significant grain yield difference between varieties.											

HAROLD G. BENJAMIN, WEBB											
1A.....	4	4	B	Ajax.....	34.1	84	32	8.5	32	2 Feed	—
				Fortune.....	33.0	87	32	8.3	31	2 Feed	—
				Clinton.....	34.6	78	29	6.5	35	3 C.W.	—
No significant grain yield difference between varieties.											

LAWRENCE W. PUDWELL, RICHMOND											
1B.....	4	7	B	Ajax.....	40.7	95	30	5.8	30	2 Feed	—
				Fortune.....	41.6	93	31	5.3	29	2 Feed	—
				Clinton.....	39.3	88	29	10.0	33	2 Feed	—
No significant grain yield difference between varieties.											

Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes

1A.....	4	9	B	Clifford Fyke, Sceptre.
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WHEAT POOL DISTRICT 5

JAMES R. NOBLE, MITCHELLTON											
1A.....	5	1	B	Ajax.....	52.0	85	31	10.0	35	3 C.W.	—
				Fortune.....	47.4	98	30	10.0	36	2 C.W.	—
				Clinton.....	45.0	81	27	10.0	36	2 C.W.	—
Necessary difference—3.7 bushels.											

EDMUND and GERALD JACOB, ST. BOSWELLS											
1A.....	5	2	B	Ajax.....	55.7	110	36	3.3	40	2 C.W.	—
				Fortune.....	78.5	116	39	9.0	42	2 C.W.	—
				Clinton.....	21.5	106	34	8.0	40	2 C.W.	—
Test damaged by birds and shattering—yields not used in zone summaries.											

THOMAS J. RUNCIE, PAMBRUN											
1A.....	5	3	B	Ajax.....	45.7	98	35	7.8	31	2 Feed	—
				Fortune.....	46.6	102	37	9.0	30	2 Feed	—
				Clinton.....	47.2	93	32	9.3	36	3 C.W.	S.G.
No significant grain yield difference between varieties.											

RAYMOND J. RAMBOW, HODGEVILLE											
1A.....	5	5	B	Ajax.....	32.1	104	26	7.5	38	1 Feed	G.
				Fortune.....	26.8	104	25	8.3	37	1 Feed	G., M.
				Clinton.....	18.5	104	25	9.3	36	1 Feed	G., M.
Necessary difference—4.6 bushels.											

Wheat Pool District 5—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test designation	Varieties	Yield bus. per acre	Days seed-ing to ripening	Plant height in inches	Straw strength	Lbs. per meas-ured bushel	Com-mercial grades	Grading remarks
GRANT S. BUDD, CARON											
2E.....	5	7	B	Ajax.....	98.0	103	41	9.9	38	1 Feed	G.
				Fortune.....	103.2	104	44	10.0	39	1 Feed	G.
				Clinton.....	77.3	97	37	9.5	39	1 Feed	G.
Necessary difference—6.4 bushels.											
ROBERT G. McKAY, LOG VALLEY											
1A.....	5	10	B	Ajax.....	99.9	97	40	8.0	34	3 C.W.	—
				Fortune.....	102.9	99	44	8.0	34	3 C.W.	—
				Clinton.....	94.4	91	34	10.0	37	2 C.W.	—
No significant grain yield difference between varieties.											
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes											
1A.....	5	9	C	Gordon E. May, Secretan.							

WHEAT POOL DISTRICT 6

HOWARD W. ROSS, MILESTONE											
2E.....	6	3	B	Ajax.....	40.5	100	34	8.0	35	3 C.W.	—
				Fortune.....	46.8	106	36	10.0	35	3 C.W.	—
				Clinton.....	38.2	93	29	8.0	35	3 C.W.	—
No significant grain yield difference between varieties.											
FRANCIS A. DUNLOP, BAILDON											
1A.....	6	5	B	Ajax.....	63.6	95	30	8.0	36	1 Feed	W., M.
				Fortune.....	57.5	109	29	8.3	37	3 C.W.	W.
				Clinton.....	49.7	93	25	7.3	36	3 C.W.	W.
No significant grain yield difference between varieties.											
ROBERT A. TAYLOR, RICHARDSON											
2E.....	6	7	C	Ajax.....	74.6	86	34	—	36	3 C.W.	W.
				Fortune.....	86.4	86	33	—	35	3 C.W.	W.
				Clinton.....	75.0	87	32	—	38	2 C.W.	—
No significant grain yield difference between varieties.											
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes											
2A.....	6	4	B	Albert M. Beingsner, Truax.							

WHEAT POOL DISTRICT 9

RONALD A. MOAR, SEMANS											
2B.....	9	7	B	Ajax.....	57.4	—	—	—	38	1 Feed	M., W.S.
				Fortune.....	60.5	—	—	—	38	1 Feed	M., W.S.
				Clinton.....	39.8	—	—	—	40	1 Feed	M., W.S.
No significant grain yield difference between varieties.											
NORMAN STUIKE, JANSEN											
2B.....	9	8	B	Ajax.....	98.2	—	—	—	38	1 Feed	M., W.S.
				Fortune.....	110.9	—	—	—	39	1 Feed	M., W.S.
				Clinton.....	73.5	—	—	—	39	1 Feed	W., W.S.
Necessary difference—14.9 bushels.											

WHEAT POOL DISTRICT 10

WAYNE L. WILSON, TUGASKE											
2B.....	10	2	B	Ajax.....	40.7	—	44	—	31	2 Feed	—
				Fortune.....	57.5	—	42	—	31	2 Feed	—
				Clinton.....	57.0	—	42	—	36	1 Feed	W.
Test damaged by shattering and lodging—yields not used in zone summaries.											
REG. E. PEACHEY, BRATTON											
2B.....	10	5	B	Ajax.....	70.2	99	34	8.3	34	3 C.W.	—
				Fortune.....	76.2	100	35	8.0	34	3 C.W.	—
				Clinton.....	63.9	94	32	8.8	36	2 C.W.	—
Necessary difference—5.9 bushels.											
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes											
2B.....	10	8	C	Edward C. Gross, Simpson.							
2B.....	10	9	B	Bobbie E. Deaver, Davidson.							

WHEAT POOL DISTRICT 11

Cereal Variety Zone	Dist.	Sub- Dist.	Test design- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
JOHN H. HEATH, KYLE											
1A.....	11	1	B	Ajax.....	6.7	—	—	—	25	3 Feed	—
				Fortune.....	5.5	—	—	—	26	3 Feed	—
				Clinton.....	2.6	—	—	—	28	2 Feed	—
Test damaged by livestock—yields not used in zone summaries.											
W. KENNETH BEWS, EATONIA											
1B.....	11	4	C	Ajax.....	64.1	—	—	—	40	2 C.W.	—
				Fortune.....	81.2	—	—	—	40	2 C.W.	—
				Clinton.....	52.3	—	—	—	40	3 C.W.	S.G., W.
Samples incomplete—yields not used in zone summaries.											
JAMES L. McCULLOUGH, FLAXCOMBE											
1B.....	11	5	B	Ajax.....	55.6	—	—	—	41	3 C.W.	S.G.
				Fortune.....	62.4	—	—	—	40	3 C.W.	S.G.
				Clinton.....	40.0	—	—	—	39	3 C.W.	S.G.
Necessary difference—9.4 bushels.											
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes											
1A.....	11	8	C	R. Neil Fullerton, McGee.							

WHEAT POOL DISTRICT 12

ELMER E. DOMES, CANDO											
2D.....	12	2	B	Ajax.....	41.2	77	35	10.0	36	1 Feed	S.G.
				Fortune.....	45.2	79	36	10.0	37	1 Feed	S.G.
				Clinton.....	33.5	75	28	10.0	36	1 Feed	S.G.
Samples bulked—yields not used in zone summaries.											
WILLIAM WELTER, BROADACRES											
2D.....	12	4	B	Ajax.....	—	—	—	—	36	1 Feed	G.
				Fortune.....	—	—	—	—	37	1 Feed	G.
				Clinton.....	—	—	—	—	36	1 Feed	G.
Yields discarded due to unusual spreads between replicates.											

WHEAT POOL DISTRICT 13

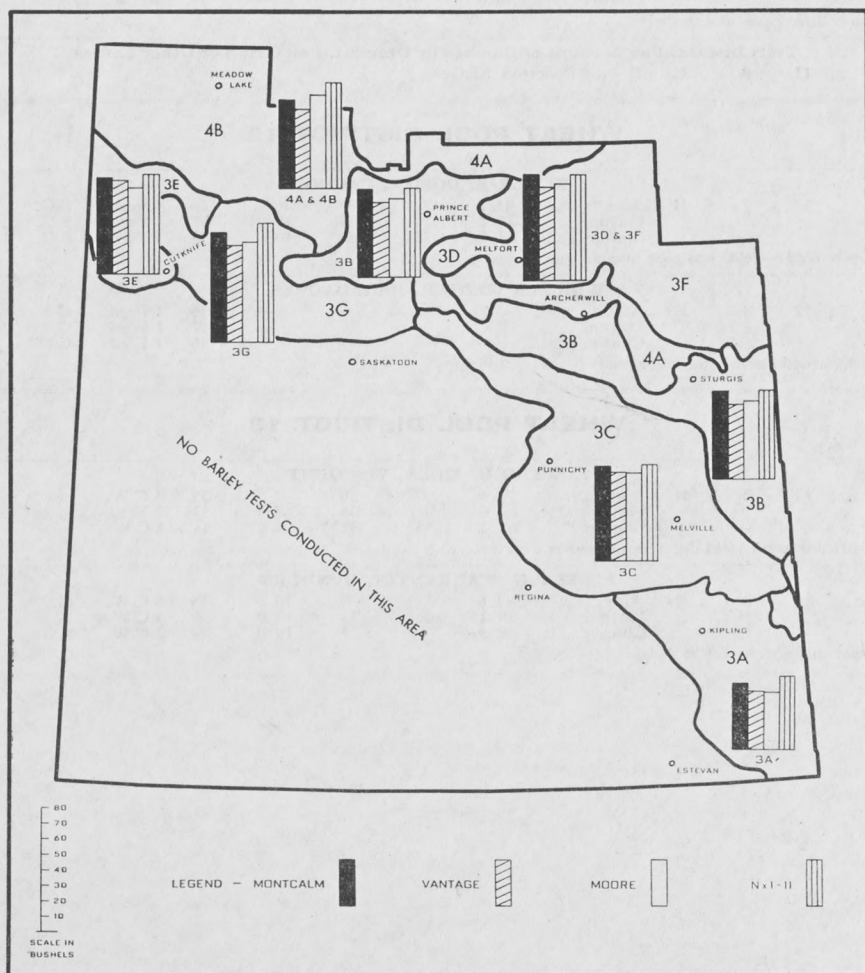
EDWARD C. MOEN, VISCOUNT											
2B.....	13	2	B	Ajax.....	71.9	97	36	9.5	35	3 C.W.	—
				Fortune.....	69.6	100	35	8.5	33	2 Feed	—
				Clinton.....	61.2	93	32	9.8	38	1 C.W.	—
No significant grain yield difference between varieties.											
ALBERT G. WARKENTIN, DUNDURN											
2B.....	13	3	B	Ajax.....	82.6	—	33	10.0	36	3 C.W.	G.
				Fortune.....	86.2	—	33	10.0	36	3 C.W.	G.
				Clinton.....	59.8	—	27	10.0	39	2 C.W.	S.G.
Necessary difference—7.4 bushels.											

BARLEY TESTS

A total of forty-six barley tests were undertaken during 1951 and these were conducted in the black and grey soils area comprised by Cereal Variety Zones 3A to 4B. (See Cereal Variety Zone Map, page 35.) The varieties Montcalm, Vantage, Moore and N x 1-11 were tested.

DESCRIPTION OF VARIETIES

Montcalm is a six-rowed, smooth awned, mid-late, blue seeded variety which resembles O.A.C. 21 in many respects. It was originated at MacDonald College, Quebec, from a cross between Black Barbless and a blue Manchurian selection. Montcalm is susceptible to stem and leaf rust and to loose smut, but is moderately resistant to covered smut. It has comparatively weak straw and is not suitable for straight combining, but has good malting quality and is eligible for grade 1 C.W. 6 Row.



Histograms showing barley yields by cereal variety zones

Vantage is a six-rowed, smooth awned, medium late variety originated at Brandon Experimental Farm from the cross (Newal x Peatland) x Plush. It has strong straw and is suitable for straight combining. Vantage is resistant to stem rust but is susceptible to leaf rust, loose smut and covered smut. It is eligible for the feed grades only.

Moore is a new six-rowed, smooth awned variety bred at the Wisconsin Agricultural Experiment Station in co-operation with the United States Department of Agriculture. Its parents are Wisconsin 38, Chevron and Olli. Moore is late maturing and has strong straw. It is resistant to stem rust and rootrot. **At the time of this report Moore had not been licensed for sale in Canada. As it had no legal grade status in Canada, it was necessary, for comparison purposes in this report, to limit the grades of Moore to 1 Feed as a maximum.**

N x 1-11 is a new, six-rowed, smooth awned, yellow aleurone barley developed at the University of Saskatchewan from a cross between Newal and an unnamed hybrid. N x 1-11 is resistant to stem rust but susceptible to smuts. It is late maturing, and has straw of medium strength. **At the time of this report N x 1-11 had not been licensed for sale in Canada. As it had no legal grade status in Canada, it was necessary for comparison purposes in this report, to limit the grades of N x 1-11 to 1 Feed as a maximum.**

GRAIN YIELD

N x 1-11 outyielded all other varieties in every zone with the exception of the 3D and 3F group where it placed second to Montcalm by a narrow margin.

Montcalm was second in yield on an average basis. It outyielded the other varieties in Zone Group 3D and 3F, placed third in Zone Group 4A and 4B, and was second in yield in the five remaining zones.

Moore and **Vantage** were practically equal in yield on an average basis.

Moore placed second in yield in Zone Group 4A and 4B. It was third in three areas, including Zones 3B, 3D and 3F, and 3G. It was outyielded by the other varieties in Zones 3A, 3C and 3E.

Vantage placed third in three zones, including 3A, 3C and 3E, and was outyielded by all other varieties in Zones 3B, 3D and 3F, 3G, and 4A and 4B.

TABLE No. 35.—AVERAGE YIELDS IN BUSHELS PER ACRE
SUMMARIZED BY CEREAL VARIETY ZONES OR GROUPED ZONES

Cereal Variety Zone	No. of Satisfactory Tests	Montcalm	Vantage	Moore	N x 1-11	Necessary Difference* in bushels
3A.....	5	42.3	37.6	36.9	47.6	N.S.
3B.....	9	57.0	48.1	50.7	57.5	N.S.
3C.....	9	61.2	57.2	57.0	62.2	4.5
3D and 3F.....	3	68.8	60.2	62.3	68.5	8.9
3E.....	4	62.0	60.2	55.4	64.1	N.S.
3G.....	4	71.0	62.7	64.9	77.0	10.3
4A and 4B.....	4	57.4	51.1	60.7	68.4	N.S.

*Necessary Difference.—Since yielding ability of varieties cannot be measured with absolute accuracy, small differences have no significance. Unless the difference in yield of two varieties is greater than the necessary difference as shown in the tables, little confidence can be placed in the superiority of one variety over the other in that particular zone group.

N.S.—No significant grain yield difference between varieties.

Past Performance and Official Recommendations

N x 1-11 was tested by the Wheat Pool for the first time in 1951. This variety has not yet been licensed, and in fact, is still in the early stages of testing. It gave an outstanding performance in Wheat Pool tests during the past year, and has enjoyed similar success in other limited tests conducted to date. No official recommendations will be made regarding the use of this variety in Saskatchewan until additional data is available from future tests.

Montcalm generally placed second in yield in 1951, exceeding Vantage and Moore in practically all areas. It placed second to Vantage in 1950, but outyielded Moore and Hannchen. In earlier Wheat Pool tests, conducted during 1945 and 1946, Montcalm gave fairly good results although Plush outyielded it consistently. During the past few years Montcalm has become recognized as the most satisfactory malting variety for use in Saskatchewan. It is recommended officially for general use in Cereal Variety Zones 3A, 3B, 3E and 3F; and is recommended for malting purposes only, in Zones 3C, 3D, 3H, 4A, and 4B.

Vantage was introduced for commercial production in 1948, and since that time has become a popular variety in Saskatchewan. **Vantage** was approximately equal to **Moore** in yield in 1951, and was outyielded by **N x 1-11** and **Montcalm**. In the 1950 tests it outyielded both **Montcalm** and **Moore**. **Vantage** gave an average performance in 1948, and placed second to **Gem** out of six varieties in 1947. Considering the record of **Vantage** over a period of years it has averaged higher than most other licensed varieties in yield tests throughout the eastern and northern cereal variety zones of Saskatchewan, and is officially recommended for the entire 3A to 4B area, with the exception of Zone 3H. It is also recommended for use in Zones 1A, 2A, 2B, 2D, and 2E of the open plains area.

With the exception of Zone Group 4A and 4B, **Moore** was third or fourth in yield in all areas in the 1951 tests. It placed second to **N x 1-11** in Zones 4A and 4B. **Moore** gave similar results in 1950. It outyielded the other varieties in Zones 4A and 4B, placed second in Zones 3A and 3B, and third or fourth in the remaining area. Over the two year period it has been inferior to **Vantage** and **Montcalm** except in Zones 4A and 4B. **Moore** is not licensed for sale in Canada, and no official recommendations will be made regarding this variety until its status is decided.

**TABLE No. 36.—AVERAGE NUMBER OF DAYS FROM SEEDING TO RIPENING
SUMMARIZED BY CEREAL VARIETY ZONES**

Cereal Variety Zone	Montcalm	Vantage	Moore	N x 1-11
3A.....	97.0	96.5	99.0	99.0
3B.....	94.3	95.7	94.4	96.3
3C.....	103.8	102.7	103.3	104.2
3D and 3F.....	97.0	97.0	98.0	99.0
3E.....	101.0	100.0	100.5	100.0
3G.....	104.0	103.5	104.0	107.0
4A and 4B.....	92.7	92.7	93.7	93.3

Table No. 36. **Vantage** ripened earlier than the other varieties on an average basis.

Montcalm was second followed by **Moore** and **N x 1-11** in that order.

**TABLE No. 37.—AVERAGE STRAW STRENGTH OF PLANTS
ON THE BASIS 10 (STRONG) — 0 (WEAK)
SUMMARIZED BY CEREAL VARIETY ZONES**

Cereal Variety Zone	Montcalm	Vantage	Moore	N x 1-11
3A.....	7.8	9.3	9.0	8.3
3B.....	6.7	8.3	7.6	8.2
3C.....	8.6	9.1	8.9	9.0
3D and 3F.....	7.6	8.6	8.2	8.3
3E.....	8.6	9.0	8.7	9.1
3G.....	8.8	8.9	8.5	8.7
4A and 4B.....	8.7	9.4	9.9	9.1

Table No. 37. **Vantage** led in straw strength. **N x 1-11** placed second, with **Moore** third and **Montcalm** fourth.

**TABLE No. 38.—AVERAGE NECK STRENGTH OF PLANTS
BASIS 1 (STRONG), 2 (MEDIUM), 3 (WEAK)
SUMMARIZED BY CEREAL VARIETY ZONES**

Cereal Variety Zone	Montcalm	Vantage	Moore	N x 1-11
3A.....	2.2	1.0	2.0	1.8
3B.....	1.5	1.1	1.8	1.6
3C.....	2.4	1.5	2.0	2.1
3D and 3F.....	2.4	1.5	1.3	1.4
3E.....	1.7	1.2	1.9	1.4
3G.....	2.0	1.7	1.9	1.4
4A and 4B.....	1.8	1.3	1.0	1.0

Table No. 38. **Vantage** was superior in neck strength in most zones. **N x 1-11** placed second on an average basis, with **Moore** third, and **Montcalm** fourth.

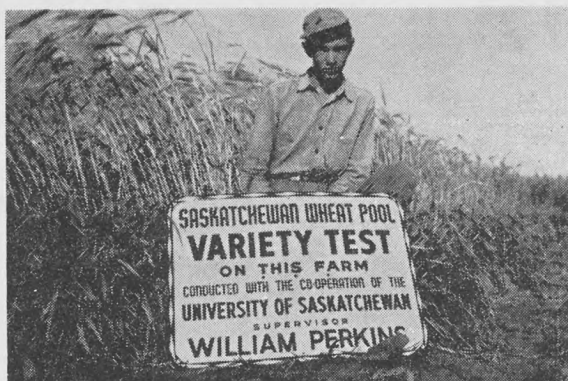
**TABLE No. 39.—AVERAGE WEIGHT PER MEASURED BUSHEL
SUMMARIZED BY CEREAL VARIETY ZONES**

Cereal Variety Zone	Montcalm	Vantage	Moore	N x 1-11
3A.....	45.2	44.6	43.6	44.6
3B.....	48.3	46.9	46.7	47.9
3C.....	47.3	46.6	46.0	47.4
3D and 3F.....	46.3	45.5	44.5	47.3
3E.....	48.5	47.0	46.8	48.3
3G.....	48.5	45.5	46.5	49.0
4A and 4B.....	48.3	47.3	46.3	48.8

Table No. 39. On an average basis, **N x 1-11** and **Montcalm** were practically equal in bushel weight. **Vantage** was third, outweighing **Moore** in every zone except 3G.

Commercial Grades

The commercial grades of the different varieties are shown on a percentage basis in the summarization according to cereal variety zones. It is not possible to compare the commercial grades of the varieties because of their different status. **Montcalm** is a six-rowed malting variety eligible for top grades in the malting class. **Vantage**, on the other hand, is restricted to the feed grades because of inferior malting quality. **Moore** and **N x 1-11** are unlicensed varieties and their grading standards have not been established.



William Perkins, Codette, and his barley variety test

SUMMARIZATION ACCORDING TO CEREAL VARIETY ZONES

TABLE No. 40.—SUMMARIZED RESULTS FOR ZONE 3A
(5 satisfactory tests)

	Montcalm	Vantage	Moore	N x 1-11
Yield in bushels per acre.....	42.3	37.6	36.9	47.6
Days from seeding to ripening.....	97.0	96.5	99.0	99.0
Height of plants in inches.....	33.0	30.7	32.3	28.7
Straw strength (maximum of 10).....	7.8	9.3	9.0	8.3
Neck strength (basis 1, strong; 2, medium; 3, weak).....	2.2	1.0	2.0	1.8
Bushel weight in pounds.....	45.2	44.6	43.6	44.6
Commercial grades in percentage: 2 C.W. 6R.....	60.0	—	—	—
1 Feed.....	—	60.0	60.0	60.0
3 Feed.....	40.0	40.0	40.0	40.0

No significant grain yield difference between varieties.

Table No. 40. **N x 1-11** was high in yield, but was shorter in straw than the other varieties. It ripened comparatively late.

Montcalm placed second in yield, and excelled in bushel weight and height. It ripened fairly early but was weak in straw and neck.

Vantage placed third in yield. It had strong straw and neck, ripened early, and gave a generally satisfactory performance.

Moore was low in yield and had poor bushel weight. It ripened late and was comparatively weak in neck strength.

TABLE No. 41.—SUMMARIZED RESULTS FOR ZONE 3B
(9 satisfactory tests)

	Montcalm	Vantage	Moore	N x 1-11
Yield in bushels per acre.....	57.0	48.1	50.7	57.5
Days from seeding to ripening.....	94.3	95.7	94.4	96.3
Height of plants in inches.....	38.7	32.4	36.6	34.0
Straw strength (maximum of 10).....	6.7	8.3	7.6	8.2
Neck strength (basis 1, strong; 2, medium; 3, weak).....	1.5	1.1	1.8	1.6
Bushel weight in pounds.....	48.3	46.9	46.7	47.9
Commercial grades in percentage: 2 C.W. 6R.....	44.4	—	—	—
3 C.W. 6R.....	11.2	—	—	—
1 Feed.....	22.2	55.5	55.5	88.8
2 Feed.....	22.2	44.5	44.5	11.2

No significant grain yield difference between varieties.

Table No. 41. **N x 1-11** was high in yield, followed closely by Montcalm. N x 1-11 ripened late, but had good bushel weight and relatively strong straw.

Montcalm was practically equal to N x 1-11 in yield, and exceeded that variety in bushel weight and height. It ripened comparatively early but had weak straw.

Moore placed third in yield and was lower in bushel weight than the other varieties. It ripened relatively early, but proved slightly inferior in neck strength.

Vantage was low in yield in this zone. It excelled in straw and neck strength, and was satisfactory in other characteristics.

TABLE No. 42.—SUMMARIZED RESULTS FOR ZONE 3C
(9 satisfactory tests)

	Montcalm	Vantage	Moore	N x 1-11
Yield in bushels per acre.....	61.2	57.2	57.0	62.2
Days from seeding to ripening.....	103.8	102.7	103.3	104.2
Height of plants in inches.....	37.8	34.8	36.9	34.9
Straw strength (maximum of 10).....	8.6	9.1	8.9	9.0
Neck strength (basis 1, strong; 2, medium; 3, weak).....	2.4	1.5	2.0	2.1
Bushel weight in pounds.....	47.3	46.6	46.0	47.4
Commercial grades in percentage: 2 C.W. 6R.....	66.7	—	—	—
3 C.W. 6R.....	11.1	—	—	—
1 Feed.....	—	77.8	77.8	77.8
2 Feed.....	11.1	11.1	11.1	11.1
3 Feed.....	11.1	11.1	11.1	11.1

Necessary difference—4.5 bushels.

Table No. 42. **N x 1-11** outyielded the other varieties, and was high in bushel weight. It ripened late and was slightly weak in neck strength but proved satisfactory in other characteristics.

Montcalm was second in yield and compared favorably with the other varieties in bushel weight. It excelled in height but was inferior in straw strength and neck strength.

Vantage placed third in yield. It excelled in straw strength and neck strength, and ripened early.

Moore was low in yield, and was outweighed by the other varieties.

TABLE No. 43.—SUMMARIZED RESULTS FOR ZONE GROUP 3D AND 3F
(3 satisfactory tests)

	Montcalm	Vantage	Moore	N x 1-11
Yield in bushels per acre.....	68.8	60.2	62.3	68.5
Days from seeding to ripening.....	97.0	97.0	98.0	99.0
Height of plants in inches.....	39.7	33.3	37.7	33.0
Straw strength (maximum of 10).....	7.6	8.6	8.2	8.3
Neck strength (basis 1, strong; 2, medium; 3, weak).....	2.4	1.5	1.3	1.4
Bushel weight in pounds.....	46.3	45.5	44.5	47.3
Commercial grades in percentage:				
2 C.W. 6R.....	25.0	—	—	—
3 C.W. 6R.....	25.0	—	—	—
1 Feed.....	—	50.0	50.0	75.0
2 Feed.....	25.0	25.0	25.0	—
3 Feed.....	25.0	25.0	25.0	25.0

Necessary difference—8.9 bushels.

Table No. 43. **Montcalm** was high in yield, but exceeded N x 1-11 by a very narrow margin. It equalled Vantage in earliness, and was taller than the other varieties. It proved inferior in straw strength and neck strength.

N x 1-11 placed second in yield and outweighed the other varieties. It had fairly good straw and neck strength, but was late in maturity.

Moore was third in yield. It had excellent neck strength and average straw strength but was low in bushel weight.

Vantage was low in yield but proved satisfactory in all other characteristics.

TABLE No. 44.—SUMMARIZED RESULTS FOR ZONE 3E
(4 satisfactory tests)

	Montcalm	Vantage	Moore	N x 1-11
Yield in bushels per acre.....	62.0	60.2	55.4	64.1
Days from seeding to ripening.....	101.0	100.0	100.5	100.0
Height of plants in inches.....	33.7	30.7	33.0	30.0
Straw strength (maximum of 10).....	8.6	9.0	8.7	9.1
Neck strength (basis 1, strong; 2, medium; 3, weak).....	1.7	1.2	1.9	1.4
Bushel weight in pounds.....	48.5	47.0	46.8	48.3
Commercial grades in percentage:				
2 C.W. 6R.....	25.0	—	—	—
3 C.W. 6R.....	50.0	—	—	—
1 Feed.....	25.0	75.0	50.0	100.0
2 Feed.....	—	25.0	50.0	—

No significant grain yield difference between varieties.

Table No. 44. **N x 1-11** outyielded the other varieties. It had short, strong straw, and comparatively good neck strength and bushel weight.

Montcalm was second in yield and was high in bushel weight. It was taller than the other varieties but proved slightly weak in straw and neck strength.

Vantage was third in yield, but was strong in straw and neck.

Moore was outyielded by all other varieties, and had low bushel weight and inferior neck strength.

TABLE No. 45.—SUMMARIZED RESULTS FOR ZONE 3G
(4 satisfactory tests)

	Montcalm	Vantage	Moore	N x 1-11
Yield in bushels per acre.....	71.0	62.7	64.9	77.0
Days from seeding to ripening.....	104.0	103.5	104.0	107.0
Height of plants in inches.....	27.3	26.0	27.7	28.7
Straw strength (maximum of 10).....	8.8	8.9	8.5	8.7
Neck strength (basis 1, strong; 2, medium; 3, weak).....	2.0	1.7	1.9	1.4
Bushel weight in pounds.....	48.5	45.5	46.5	49.0
Commercial grades in percentage:				
2 C.W. 6R.....	75.0	—	—	—
1 Feed.....	—	25.0	50.0	75.0
2 Feed.....	25.0	50.0	50.0	25.0
3 Feed.....	—	25.0	—	—

Necessary difference—10.3 bushels.

Table No. 45. **N x 1-11** was high in yield and bushel weight. It was taller than the other varieties and had good neck strength, but ripened very late.

Montcalm was second in yield and proved satisfactory in all other characteristics except neck strength.

Moore was third in yield and had slightly weaker straw than the other varieties.

Vantage was low in yield and bushel weight but ripened comparatively early.

TABLE No. 46.—SUMMARIZED RESULTS FOR ZONE GROUP 4A AND 4B
(4 satisfactory tests)

	Montcalm	Vantage	Moore	N x 1-11
Yield in bushels per acre.....	57.4	51.1	60.7	68.4
Days from seeding to ripening.....	92.7	92.7	93.7	93.3
Height of plants in inches.....	37.0	33.6	34.3	31.3
Straw strength (maximum of 10).....	8.7	9.4	9.9	9.1
Neck strength (basis 1, strong; 2, medium; 3, weak).....	1.8	1.3	1.0	1.0
Bushel weight in pounds.....	48.3	47.3	46.3	48.8
Commercial grades in percentage: 2 C.W. 6R.....	75.0	—	—	—
3 C.W. 6R.....	25.0	—	—	—
1 Feed.....	—	100.0	75.0	100.0
2 Feed.....	—	—	25.0	—

No significant grain yield difference between varieties.

Table No. 46. **N x 1-11** was high in yield and bushel weight, and had good neck strength. It was shorter in straw than the other varieties.

Moore placed second in yield, and had good straw and neck strength. It was low in bushel weight and ripened slightly later than the other varieties.

Montcalm was third in yield. It had tall, weak straw and was inferior in neck strength. It equalled Vantage in earliness, and had good bushel weight.

Vantage was low in yield. It ripened comparatively early, and proved generally satisfactory in other characteristics.

TABLE No. 47

Individual Summarized Results of All Tests—Barley

WHEAT POOL DISTRICT 1

Cereal Variety Zone	Dist.	Sub-Dist.	Test Designation	Varieties	Yield bus. per acre	Days seeding to ripening	Plant height in inches	Straw strength	Neck strength	Lbs. per measured bushel	Commercial Grades	Grading Remarks
DENNIS BELMORE, REDVERS												
3A.....	1	2	B	Montcalm.....	38.6	—	—	—	—	51	2 C.W.6R	—
				Vantage.....	35.6	—	—	—	—	48	1 Feed	—
				Moore.....	35.3	—	—	—	—	48	1 Feed	—
				N x 1-11.....	41.0	—	—	—	—	49	1 Feed	—

No significant grain yield difference between varieties.

ANDRE BAUCHE, ANTLER												
3A.....	1	10	B	Montcalm.....	39.3	—	—	—	—	49	2C.W.6R	—
				Vantage.....	31.6	—	—	—	—	48	1 Feed	—
				Moore.....	31.1	—	—	—	—	47	1 Feed	—
				N x 1-11.....	41.9	—	—	—	—	49	1 Feed	—

No significant grain yield difference between varieties.

WHEAT POOL DISTRICT 6

KENNETH J. TURPIN, SINTALUTA												
3C.....	6	8	B	Montcalm.....	44.2	—	—	—	—	41	3 Feed	—
				Vantage.....	38.5	—	—	—	—	40	3 Feed	—
				Moore.....	49.3	—	—	—	—	41	3 Feed	—
				N x 1-11.....	39.5	—	—	—	—	41	3 Feed	—

No significant grain yield difference between varieties.

WHEAT POOL DISTRICT 7

T. ELVIN AXTEN, MOOSOMIN												
3B.....	7	2	B	Montcalm.....	75.4	93	40	6.0	2.0	49	2C.W.6R	S.E.
				Vantage.....	48.9	95	33	7.0	1.0	48	1 Feed	—
				Moore.....	68.0	93	39	9.0	1.0	48	1 Feed	—
				N x 1-11.....	73.4	95	33	10.0	1.0	49	1 Feed	—

Necessary difference—8.6 bushels.

FRANK C. EASTON JR., KENNEDY												
3A.....	7	3	B	Montcalm.....	65.2	99	31	5.5	3.0	49	2C.W.6R	—
				Vantage.....	52.6	100	28	8.5	1.0	49	1 Feed	—
				Moore.....	57.1	100	30	8.0	2.0	48	1 Feed	—
				N x 1-11.....	72.5	100	28	6.5	2.0	50	1 Feed	—

No significant grain yield difference between varieties.

LYALLE E. PURDON, CREELMAN												
2A.....	7	5	B	Montcalm.....	39.0	—	36	—	—	36	3 Feed	—
				Vantage.....	32.1	—	35	—	—	37	3 Feed	—
				Moore.....	34.4	—	36	—	—	36	3 Feed	—
				N x 1-11.....	42.0	—	31	—	—	36	3 Feed	—

No significant grain yield difference between varieties.

GEORGE CARON, MONTMARTRE												
3A.....	7	6	C	Montcalm.....	29.6	95	32	10.0	1.3	41	3 Feed	—
				Vantage.....	36.2	93	29	10.0	1.0	41	3 Feed	—
				Moore.....	26.8	98	31	10.0	2.0	39	3 Feed	—
				N x 1-11.....	40.7	98	27	10.0	1.5	39	3 Feed	—

Necessary difference—5.2 bushels.

THOMAS D. EDE, WHITEWOOD												
3C.....	7	8	B	Montcalm.....	82.6	115	34	8.5	3.0	49	2C.W.6R	—
				Vantage.....	75.1	114	32	9.0	1.0	49	1 Feed	—
				Moore.....	69.2	115	36	10.0	1.3	47	1 Feed	—
				N x 1-11.....	82.2	116	33	10.0	2.0	50	1 Feed	—

Necessary difference—7.8 bushels.

FRED W. BASELEY, SPY HILL												
3B.....	7	9	B	Montcalm.....	55.2	105	38	1.0	1.0	46	3C.W.6R	—
				Vantage.....	46.6	105	33	4.3	1.0	45	2 Feed	—
				Moore.....	44.9	105	38	1.0	1.8	44	2 Feed	—
				N x 1-11.....	53.4	107	35	2.8	2.3	46	1 Feed	—

Necessary difference—4.8 bushels.

Wheat Pool District 7—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test Designation	Varieties	Yield bus. per acre	Days seeding to ripening	Plant height in inches	Straw strength	Neck strength	Lbs. per measured bushel	Commercial Grades	Grading Remarks
JEANNE S. MILLER, LEMBERG												
3C.....	7	11	B	Montcalm..	49.1	104	36	8.5	1.3	44	2 Feed	—
				Vantage.....	52.0	104	33	8.5	1.8	45	2 Feed	—
				Moore.....	44.8	105	35	7.3	2.3	43	2 Feed	—
				N x 1-11.....	47.9	105	34	7.3	2.8	45	2 Feed	—

No significant grain yield difference between varieties.

WHEAT POOL DISTRICT 8

AMBROSIE SOBKOW, CALDER												
3B.....	8	1	C	Montcalm..	30.7	95	28	8.0	2.0	49	2C.W.6R	—
				Vantage.....	30.5	96	27	8.0	2.0	49	1 Feed	—
				Moore.....	33.8	97	26	7.0	2.0	47	1 Feed	—
				N x 1-11.....	36.0	97	26	7.0	2.0	49	1 Feed	—

No significant grain yield difference between varieties.

MARGARET J. GIBLER, SALT COATS												
3B.....	8	2	B	Montcalm..	47.4	81	42	10.0	1.0	47	2 Feed	G., I., W.S.
				Vantage.....	39.7	87	33	10.0	1.0	46	2 Feed	G., I., W.S.
				Moore.....	37.1	81	42	10.0	2.0	45	2 Feed	G., I., W.S.
				N x 1-11.....	50.0	87	36	10.0	1.0	48	2 Feed	G., I., W.S.

Necessary difference—7.1 bushels.

DONALD BERNDT, VEREGIN												
3B.....	8	5	B	Montcalm..	61.4	89	38	9.8	1.8	50	2C.W.6R	—
				Vantage.....	56.3	91	35	9.0	1.0	48	1 Feed	—
				Moore.....	61.4	91	38	9.5	1.5	50	1 Feed	—
				N x 1-11.....	62.0	92	34	9.8	2.0	50	1 Feed	—

Necessary difference—3.2 bushels.

EDWARD G. TUNBRIDGE, PREECEVILLE												
3B.....	8	8	C	Montcalm..	37.2	—	—	—	—	49	2 Feed	G., I., W.S.
				Vantage.....	29.7	—	—	—	—	48	2 Feed	G., I., W.S.
				Moore.....	31.4	—	—	—	—	49	1 Feed	—
				N x 1-11.....	39.0	—	—	—	—	49	1 Feed	—

No significant grain yield difference between varieties.

Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes

3C.....	8	4	B	Warren and Graham Hall, Orcadia.
4A.....	8	10	B	Allan A. Lister, Pelly.

WHEAT POOL DISTRICT 9

EDWARD J. FEIGEL, DYSART												
3C.....	9	2	B	Montcalm..	48.6	97	33	—	—	46	3C.W.6R	—
				Vantage.....	42.3	93	32	—	—	46	1 Feed	—
				Moore.....	54.0	93	31	—	—	46	1 Feed	—
				N x 1-11.....	46.5	97	30	—	—	46	1 Feed	—

No significant grain yield difference between varieties.

JOHN F. KUXHAUS, DUVAL												
3C.....	9	5	B	Montcalm..	58.1	100	44	9.0	3.0	49	2C.W.6R	—
				Vantage.....	68.6	100	40	10.0	1.0	47	1 Feed	—
				Moore.....	60.4	100	42	9.5	2.5	47	1 Feed	—
				N x 1-11.....	60.0	100	40	9.8	2.0	49	1 Feed	—

No significant grain yield difference between varieties.

KENNETH N. ROCKEL, LANIGAN												
3C.....	9	6	B	Montcalm..	54.4	109	41	7.5	2.8	48	2C.W.6R	—
				Vantage.....	44.8	109	37	6.8	2.8	47	1 Feed	—
				Moore.....	46.4	110	39	7.1	3.0	46	1 Feed	—
				N x 1-11.....	59.9	109	37	7.9	2.8	49	1 Feed	—

No significant grain yield difference between varieties.

WALTER R. PERRY, WISHART												
3C.....	9	9	B	Montcalm..	82.6	—	39	—	—	49	2C.W.6R	—
				Vantage.....	78.3	—	36	—	—	48	1 Feed	—
				Moore.....	68.0	—	36	—	—	47	1 Feed	—
				N x 1-11.....	83.5	—	37	—	—	49	1 Feed	—

No significant grain yield difference between varieties.

Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes

3C.....	9	3	B	J. M. Halliday, Lestock.
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WHEAT POOL DISTRICT 12

Cereal Variety Zone	Dist.	Sub-Dist.	Test Designation	Varieties	Yield bus. per acre	Days seeding to ripening	Plant height in inches	Straw strength	Neck strength	Lbs. per measured bushel	Commercial Grades	Grading Remarks
DONALD J. MARSHALL, WINTER												
3E.....	12	7	B	Montcalm..	70.6	—	—	—	—	47	1 Feed	G.
				Vantage.....	68.8	—	—	—	—	47	1 Feed	—
				Moore.....	64.2	—	—	—	—	47	1 Feed	—
				N x 1-11.....	72.9	—	—	—	—	46	1 Feed	—

No significant grain yield difference between varieties.

GUY LACOURSIERE, HIGHGATE												
3G.....	12	10	B	Montcalm..	89.2	100	26	—	2.0	49	2C.W.6R	—
				Vantage.....	86.7	98	25	—	2.0	44	2 Feed	—
				Moore.....	96.2	100	26	—	2.0	45	2 Feed	—
				N x 1-11.....	101.9	105	32	—	1.0	51	1 Feed	—

No significant grain yield difference between varieties.

Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes

3E.....	12	8	B	Keith E. Hinch, Neilburg.								
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WHEAT POOL DISTRICT 13

SUSAN N. IWASIUK, CUDWORTH												
3C.....	13	9	B	Montcalm..	82.7	—	44	8.8	2.0	51	2C.W.6R	—
				Vantage.....	70.3	—	38	10.0	1.3	49	1 Feed	—
				Moore.....	75.9	—	44	9.5	2.0	49	1 Feed	—
				N x 1-11.....	89.0	—	38	9.0	2.0	49	1 Feed	—

Necessary difference—6.3 bushels.

HARRY HLECK, ENGLEFELD												
3C.....	13	11	B	Montcalm..	48.1	98	31	9.0	2.0	49	2C.W.6R	—
				Vantage.....	44.6	96	30	10.0	1.0	48	1 Feed	—
				Moore.....	44.6	97	32	10.0	1.0	48	1 Feed	—
				N x 1-11.....	51.0	98	30	10.0	1.0	49	1 Feed	—

Necessary difference—3.7 bushels.

WHEAT POOL DISTRICT 14

ALFRED WEINHANDL, LINTLAW												
4A.....	14	1	B	Montcalm..	67.2	98	—	—	—	49	2C.W.6R	—
				Vantage.....	63.0	99	—	—	—	48	1 Feed	—
				Moore.....	77.9	100	—	—	—	46	1 Feed	—
				N x 1-11.....	93.0	100	—	—	—	48	1 Feed	—

No significant grain yield difference between varieties.

GINA PRESSACCO, ROSE VALLEY												
3B.....	14	4	B	Montcalm..	71.6	103	49	6.3	1.0	48	2C.W.6R	—
				Vantage.....	55.2	98	38	10.0	1.0	46	1 Feed	—
				Moore.....	62.4	100	42	9.0	3.0	45	2 Feed	—
				N x 1-11.....	69.5	102	46	8.0	1.0	47	1 Feed	—

Necessary difference—5.3 bushels.

EARL E. SCHWARTZ, MELFORT												
3D.....	14	8	B	Montcalm..	66.2	—	42	7.0	1.8	41	3 Feed	—
				Vantage.....	64.9	—	35	9.3	1.0	39	3 Feed	—
				Moore.....	53.5	—	38	9.0	1.5	35	3 Feed	—
				N x 1-11.....	71.2	—	33	9.5	1.8	40	3 Feed	—

No significant grain yield difference between varieties.

VERN J. GRONVOLD, WELDON												
3D.....	14	9	C	Montcalm..	36.1	97	40	10.0	3.0	45	2 Feed	—
				Vantage.....	31.3	97	31	10.0	2.0	45	2 Feed	—
				Moore.....	34.4	98	38	9.0	1.0	44	2 Feed	—
				N x 1-11.....	35.4	99	30	9.0	1.0	47	1 Feed	—

No significant grain yield difference between varieties.

WILLIAM F. PERKINS, CODETTE												
3F.....	14	11	B	Montcalm..	104.1	—	37	5.7	—	51	2C.W.6R	—
				Vantage.....	84.3	—	34	6.5	—	50	1 Feed	—
				Moore.....	99.0	—	37	6.5	—	50	1 Feed	—
				N x 1-11.....	98.9	—	36	6.5	—	52	1 Feed	—

No significant grain yield difference between varieties.

Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes

3F.....	14	6	A	Evelyn R. Falconer, Chelan.								
3F.....	14	10	B	Aime Lalonde, Arborfield.								

WHEAT POOL DISTRICT 15

Cereal Variety Zone	Dist.	Sub-Dist.	Test Designation	Varieties	Yield bus. per acre	Days seeding to ripening	Plant height in inches	Straw strength	Neck strength	Lbs. per measured bushel	Commercial Grades	Grading Remarks
LOUIS FAUCHOUX, HOEY												
3D.....	15	2	B	Montcalm.....	—	—	—	—	—	48	3C.W.6R	G.
				Vantage.....	—	—	—	—	—	48	1 Feed	—
				Moore.....	—	—	—	—	—	49	1 Feed	—
				N x 1-11.....	—	—	—	—	—	50	1 Feed	—

Yields incomplete.

HARALD JENSEN, FIR RIDGE												
3B.....	15	3	B	Montcalm.....	58.1	94	36	6.0	2.0	47	1 Feed	G.
				Vantage.....	59.4	98	28	10.0	1.0	44	2 Feed	—
				Moore.....	52.0	94	31	8.0	1.0	44	2 Feed	—
				N x 1-11.....	69.9	94	28	10.0	2.0	46	1 Feed	—

No significant grain yield difference between varieties.

WILLIAM H. O. REED, SHELL LAKE												
4B.....	15	6	B	Montcalm.....	42.2	90	34	9.3	1.8	48	2C.W.6R	—
				Vantage.....	37.9	89	32	9.8	1.5	46	1 Feed	—
				Moore.....	42.6	90	29	9.8	1.0	47	1 Feed	—
				N x 1-11.....	43.7	89	27	9.5	1.0	49	1 Feed	—

No significant grain yield difference between varieties.

ELMER PACZAY, PADDOCKWOOD												
4A.....	15	9	B	Montcalm.....	57.0	—	—	—	—	49	2C.W.6R	—
				Vantage.....	45.1	—	—	—	—	47	1 Feed	—
				Moore.....	61.8	—	—	—	—	48	1 Feed	—
				N x 1-11.....	68.3	—	—	—	—	50	1 Feed	—

Necessary difference—5.2 bushels.

M. DUANE BUCHANAN, WEIRDALE												
3B.....	15	10	B	Montcalm.....	76.4	—	—	—	—	50	1 Feed	Pl., G.
				Vantage.....	66.8	—	—	—	—	48	1 Feed	—
				Moore.....	65.0	—	—	—	—	48	1 Feed	—
				N x 1-11.....	64.1	—	—	—	—	47	1 Feed	—

No significant grain yield difference between varieties.

WHEAT POOL DISTRICT 16

KENNETH W. ZALESCHUK, MAYMONT												
3G.....	16	1	B	Montcalm.....	41.4	—	16	9.0	1.8	48	2C.W.6R	—
				Vantage.....	41.5	—	15	9.0	1.3	45	2 Feed	—
				Moore.....	30.6	—	17	9.0	1.8	47	1 Feed	—
				N x 1-11.....	44.9	—	16	9.0	1.3	48	1 Feed	—

Necessary difference—4.9 bushels.

FORREST G. WOHLBERG, SPEERS												
3G.....	16	2	B	Montcalm.....	88.6	108	40	8.5	2.3	52	2C.W.6R	—
				Vantage.....	66.2	109	38	8.8	1.8	51	1 Feed	—
				Moore.....	73.0	108	40	8.0	2.0	51	1 Feed	—
				N x 1-11.....	95.1	109	38	8.3	2.0	52	1 Feed	—

Necessary difference—3.9 bushels.

LEONARD A. PERRON, EDAM												
3E.....	16	4	A	Montcalm.....	48.5	86	30	8.0	1.8	47	3C.W.6R	—
				Vantage.....	50.4	86	28	9.8	1.0	43	2 Feed	—
				Moore.....	49.2	86	30	9.8	1.3	44	2 Feed	—
				N x 1-11.....	53.4	86	28	10.0	1.0	46	1 Feed	—

No significant grain yield difference between varieties.

LANO R. HINDE, WASECA												
3E.....	16	5	C	Montcalm.....	54.1	116	37	9.3	2.3	53	2C.W.6R	—
				Vantage.....	45.7	114	33	9.0	1.5	52	1 Feed	—
				Moore.....	44.9	115	36	8.0	2.3	51	1 Feed	—
				N x 1-11.....	56.9	114	34	8.8	2.0	53	1 Feed	—

No significant grain yield difference between varieties.

J. H. ARNOLD MUSICH, PARADISE HILL												
3E.....	16	7	B	Montcalm.....	74.6	—	34	8.5	1.0	47	3C.W.6R	—
				Vantage.....	76.0	—	31	8.3	1.0	46	1 Feed	—
				Moore.....	63.3	—	33	8.3	2.0	45	2 Feed	—
				N x 1-11.....	73.2	—	28	8.5	1.3	48	1 Feed	—

No significant grain yield difference between varieties.

Wheat Pool District 16—Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test Desig- nation	Varieties	Yield bus. per acre	Days seeding to ripening	Plant height in inches	Straw strength	Neck strength	Lbs. per meas- ured bushel	Com- mercial Grades	Grading Remarks
DONALD F. MILLARD, MEDSTEAD												
3G.....	16	9	B	Montcalm..	64.7	—	—	—	—	45	2 Feed	—
				Vantage.....	56.5	—	—	—	—	42	3 Feed	—
				Moore.....	59.7	—	—	—	—	43	2 Feed	—
				N x 1-11.....	66.0	—	—	—	—	45	2 Feed	—

No significant grain yield difference between varieties.

JOSEPH WILLOCK JR., MILDRED												
4B.....	16	10	C	Montcalm..	63.0	90	40	8.0	1.7	47	3C.W.6R	—
				Vantage.....	58.3	90	35	9.0	1.0	48	1 Feed	—
				Moore.....	60.4	91	39	10.0	1.0	44	2 Feed	—
				N x 1-11.....	68.7	91	36	8.7	1.0	48	1 Feed	G.

No significant grain yield difference between varieties.

CROP COMPARISON TESTS

In 1948 the Saskatchewan Wheat Pool began a series of tests in which a comparison was made between a leading variety of each of the four main spring crops grown in Saskatchewan. The varieties Thatcher wheat, Fortune oats, Montcalm barley and Dakota flax were used and the results were analyzed by comparing the average cash return per acre from each crop on a cereal variety zone basis.

As the 1948 project proved successful and a considerable amount of valuable information was assembled, it was decided to continue the experiment over a period of years in order to obtain conclusive results. Thus, crop comparison tests formed a part of the Wheat Pool projects during 1949, 1950 and 1951.

Due to the disastrous frosts which occurred in 1950, and the prolonged wet weather which ruined a large part of the Saskatchewan crop in 1951, the results obtained from the crop comparison tests during each of those years were of little practical value.

It is almost impossible to obtain satisfactory results from a crop comparison test when damaging weather conditions occur during the harvest period. This is due to the fact that each crop requires a different length of time to reach maturity, and the unfavorable weather is almost certain to strike one of the varieties in a more vulnerable stage than the others.

In some of the tests during 1951 Fortune oats and Montcalm barley had been harvested before the unfavorable weather commenced, but the Thatcher wheat and Dakota flax, which ripened later, were subject to severe damage by rain and snow which in some cases continued for several weeks before they were fit to harvest. If all tests had been affected in this manner it might have been possible to show that higher returns would be obtained in a year like 1951 by growing early maturing crops. However, this was not the case. In some of the tests the unfavorable weather conditions occurred just as the earlier crops ripened with the result that they were damaged more than the later crops which did not reach a vulnerable stage of maturity until the worst of the wet weather was over.

Under these conditions it was not possible to make an accurate analysis of the cash-value-per-acre of the different crops as originally planned. Instead, the results of the crops in each test were calculated individually for yield, maturity period, height, bushel weight and grades. No adjustments were made to compensate for damage which occurred.

These results are shown in the following table for the interest of farmers in districts where the tests were located. **Because of the unusual conditions under which the tests were conducted, however, the results should not be used as a guide to future operations.**



The crop comparison test conducted by Lawrence Feil, Cactus Lake

DESCRIPTION OF VARIETIES

Thatcher wheat—(see page 10).

Fortune oats—(see page 39).

Montcalm barley—(see page 48).

Dakota flax was developed by the United States Department of Agriculture and the North Dakota Agricultural Experiment Station from the cross Renew x Bison. It is resistant to some races of rust but is susceptible to those prevailing at the present time. It is highly resistant to wilt and is susceptible to pasmo. Dakota has blue blossoms, and medium sized brown seeds which produce good quality oil. It matures earlier and more uniformly than Royal.

TABLE No. 48

Individual Summarized Results of Crop Comparison Tests

WHEAT POOL DISTRICT 1

Cereal Variety Zone	Dist.	Sub-Dist.	Test Designation	Varieties	Yield Bushels per Acre	Days Seeding to Ripening	Plant Height in Inches	Pounds per Measured Bushel	Commercial Grades	Grading Remarks
MERRILL COOPER, CARIEVALE										
3A.....	1	1	B	Thatcher.....	26.7	96	31	62	4 N.	G., I.
				Fortune.....	58.1	82	28	36	1 Feed	G.
				Montcalm.....	43.4	86	28	45	2 Feed	—
				Dakota.....	10.1	111	19	56	1 C.W.	—
GARTH A. WINTERINGHAM, OXBOW										
3A.....	1	3	B	Thatcher.....	41.3	96	36	61	4 N.	G., I.
				Fortune.....	65.0	96	36	33	2 Feed	—
				Montcalm.....	53.6	88	48	44	2 Feed	—
				Dakota.....	6.1	96	28	56	2 C.W.	G.
REGINALD V. MATTHIES, BRYANT										
2A.....	1	5	B	Thatcher.....	8.3	102	18	58	2 N.	—
				Fortune.....	5.4	110	14	34	3 Feed	M., W.
				Montcalm.....	7.5	108	22	43	2 Feed	—
				Dakota.....	.8	131	16	53	3 C.W.	G.
Damaged by shattering.										
CORRINNE J. SWENSON, MIDALE										
2A.....	1	6	C	Thatcher.....	22.7	—	24	62	2 N.	I.
				Fortune.....	12.7	—	24	38	1 Feed	G., M.
				Montcalm.....	47.7	—	36	45	2 Feed	—
				Dakota.....	8.8	—	18	55	3 C.W.	F., G.
Fortune damaged by shattering.										

WHEAT POOL DISTRICT 5

HAROLD A. BOX, COURVAL										
1A.....	5	6	B	Thatcher.....	30.5	112	24	62	No. 6	G., I.
				Fortune.....	42.3	115	20	39	1 Feed	W.
				Montcalm.....	34.5	109	22	47	3 C.W. 6R	—
				Dakota.....	4.8	120	15	54	2 C.W.	G.
Dakota damaged by shattering.										
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes										
2E.....	5	8	B	Joyce and Stanley Wells, Tuxford.						

WHEAT POOL DISTRICT 6

JOHN W. TOBIAS, VIBANK										
3C.....	6	2	B	Thatcher.....	21.2	—	—	60	3 N.	G., I.
				Fortune.....	41.0	—	—	34	1 Feed	—
				Montcalm.....	24.5	—	—	42	3 Feed	—
				Dakota.....	3.6	—	—	53	2 C.W.	V.G.
WILFRED R. FILAZEK, SPRING VALLEY										
1A.....	6	4	C	Thatcher.....	22.7	—	22	56	4 N.	—
				Fortune.....	43.7	—	18	30	2 Feed	—
				Montcalm.....	29.9	—	18	39	3 Feed	—
				Dakota.....	5.7	—	15	55	1 C.W.	—
Dakota damaged by grasshoppers.										
M. DOREEN JEFFERY, BRIERCREST										
1A.....	6	6	B	Thatcher.....	34.8	97	35	62	3 N.	V.G., I.
				Fortune.....	54.2	94	36	38	2 C.W.	—
				Montcalm.....	50.5	92	35	51	2 C.W. 6R	—
				Dakota.....	8.6	111	23	55	1 C.W.	—
JIM E. McKECHNIE, BETHUNE										
2B.....	6	10	B	Thatcher.....	19.4	87	20	58	4 N.	G., I.
				Fortune.....	35.7	85	21	36	3 Feed	M.
				Montcalm.....	25.2	83	21	46	1 Feed	—
				Dakota.....	3.0	94	20	52	3 C.W.	F., G.
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes										
3C.....	6	9	B	William J. Mlazgar, Fort Qu'Appelle.						

WHEAT POOL DISTRICT 7

Cereal Variety Zone	Dist.	Sub-Dist.	Test Designation	Varieties	Yield Bushels per Acre	Days Seeding to Ripening	Plant Height in Inches	Pounds per Measured Bushel	Commercial Grades	Grading Remarks
DICK F. THOMPSON, KELSO										
3A.....	7	1	B	Thatcher.....	26.4	105	32	62	2 N.	I.
				Fortune.....	43.1	106	30	38	1 Feed	G., W.
				Montcalm.....	45.4	99	35	50	1 Feed	G., W.
				Dakota.....	—	—	—	—	—	—
Dakota destroyed by shattering and bird damage.										
ROBERT J. ARCHER, BROADVIEW										
3A.....	7	7	B	Thatcher.....	30.6	98	31	62	1 N.	—
				Fortune.....	53.5	94	30	34	1 Feed	G.
				Montcalm.....	49.2	96	29	45	2 Feed	—
				Dakota.....	—	—	—	—	—	—
Dakota destroyed.										
KENNETH W. THOMAS, BANGOR										
3C.....	7	10	C	Thatcher.....	37.8	105	38	61	2 N.	S.G.
				Fortune.....	81.2	101	38	34	1 Feed	W.
				Montcalm.....	44.4	107	37	47	3 C.W. 6R	—
				Dakota.....	—	—	—	—	—	—
Dakota destroyed.										
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes										
3A.....	7	4	B	Gerald B. Zaiser, Kipling.						

WHEAT POOL DISTRICT 8

PATRICK ROONEY, SALTCOATS										
3B.....	8	2	C	Thatcher.....	31.1	—	32	58	2 N.	—
				Fortune.....	66.9	—	36	39	3 C.W.	W.
				Montcalm.....	50.3	—	30	44	2 Feed	—
				Dakota.....	10.4	—	25	55	2 C.W.	—
GERALD SMERCHYNSKI, YORKTON										
3C.....	8	4	C	Thatcher.....	24.9	—	44	61	2 N.	S.G., W.
				Fortune.....	72.1	94	44	36	1 Feed	M., W.
				Montcalm.....	45.5	95	43	48	1 Feed	G., I.
				Dakota.....	8.3	—	27	55	2 C.W.	G., F.
HENRY WASYLYSHEN, GORLITZ										
3C.....	8	6	A	Thatcher.....	24.4	—	—	59	2 N.	S.G.
				Fortune.....	51.8	—	—	37	1 Feed	G.
				Montcalm.....	38.7	—	—	47	3 C.W. 6R	—
				Dakota.....	8.5	—	—	55	1 C.W.	—
FLORIAN B. NOVAKOWSKI, RAMA										
3B.....	8	7	B	Thatcher.....	35.9	108	39	61	3 N.	G., I.
				Fortune.....	91.6	102	39	39	3 C.W.	W.
				Montcalm.....	64.2	96	41	50	2 C.W. 6R	W.S.
				Dakota.....	5.3	133	25	54	2 C.W.	G.
LEVENTINE OCHITWA, NORQUAY										
3B.....	8	9	B	Thatcher.....	48.7	—	—	62	2 N.	I.
				Fortune.....	126.2	—	—	38	1 Feed	W., M.
				Montcalm.....	55.8	—	—	49	2 C.W. 6R	—
				Dakota.....	—	—	—	—	—	—
Dakota destroyed.										

WHEAT POOL DISTRICT 9

PETER MARSHALL, ITUNA										
3C.....	9	1	B	Thatcher.....	32.4	—	—	61	4 N.	V.G., I.
				Fortune.....	60.1	—	—	36	2 Feed	M., W.
				Montcalm.....	52.7	—	—	45	2 Feed	—
				Dakota.....	9.6	—	—	55	3 C.W.	F., G.
EDWARD C. BECKETT, ENID										
3C.....	9	2	C	Thatcher.....	29.6	117	31	62	1 N.	—
				Fortune.....	58.6	109	30	38	2 C.W.	—
				Montcalm.....	44.0	116	33	49	2 C.W. 6R	—
				Dakota.....	—	—	—	—	—	—
Dakota destroyed.										

Wheat Pool District 9—Continued

Cereal Variety Zone	Dist.	Sub-Dist.	Test Designation	Varieties	Yield Bushels per Acre	Days Seeding to Ripening	Plant Height in Inches	Pounds per Measured Bushel	Commercial Grades	Grading Remarks
ERNEST ORBAN, PUNNICHY										
3C.....	9	3	C	Thatcher.....	43.5	117	27	60	2 N.	I.
				Fortune.....	92.2	117	25	40	2 C.W.	—
				Montcalm.....	88.6	115	26	49	1 Feed	G., I.
				Dakota.....	10.9	121	16	55	2 C.W.	G.
Fortune samples incomplete due to damage.										
RONALD H. FRIZZELL, STRASBOURG										
2B.....	9	4	B	Thatcher.....	18.0	96	29	53	No. 5	Sh., I.
				Fortune.....	44.0	93	29	27	3 Feed	—
				Montcalm.....	38.4	88	36	35	3 Feed	—
				Dakota.....	8.8	114	23	52	2 C.W.	G.
A. LEON ARNASON, ELFROS										
3C.....	9	10	B	Thatcher.....	42.9	120	37	60	4 N.	G., I.
				Fortune.....	—	116	38	39	3 C.W.	W.
				Montcalm.....	76.9	115	40	50	2 C.W. 6R	—
				Dakota.....	—	—	—	—	—	—
Fortune and Dakota destroyed.										

WHEAT POOL DISTRICT 10

WILFRED J. LANG, AYLESBURY										
2B.....	10	1	B	Thatcher.....	21.6	—	—	59	2 N.	—
				Fortune.....	30.4	—	—	36	1 Feed	W.
				Montcalm.....	26.3	—	—	42	3 Feed	—
				Dakota.....	1.7	—	—	55	1 C.W.	—
Dakota badly damaged by shattering and grasshoppers.										
WILLIAM A. GOTTSSELIG, GLENSIDE										
2B.....	10	6	B	Thatcher.....	20.9	121	22	61	2 N.	G., I.
				Fortune.....	40.9	116	24	35	3 C.W.	—
				Montcalm.....	43.3	119	30	48	2 C.W. 6R	—
				Dakota.....	—	—	—	—	—	—
Dakota destroyed.										
RUDY J. GROSS, RENOWN										
2B.....	10	8	B	Thatcher.....	15.1	119	30	60	2 N.	Bl., I.
				Fortune.....	30.0	121	26	40	3 C.W.	W.
				Montcalm.....	—	—	—	—	—	—
				Dakota.....	—	—	—	—	—	—
Montcalm and Dakota destroyed.										
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes										
2F.....	10	4	B	Jack M. McDonald, Wiseton.						
2B.....	10	10	B	Keith H. Dahlen, Valley Park.						

WHEAT POOL DISTRICT 11

JACK B. ROBERTSON, MERID										
1B.....	11	5	C	Thatcher.....	32.8	—	—	61	2 N.	I.
				Fortune.....	76.6	—	—	38	1 Feed	G.
				Montcalm.....	71.2	—	—	50	2 C.W. 6R	—
				Dakota.....	8.2	—	—	55	1 C.W.	—
JOHN R. KLETTEKE, BEADLE										
2F.....	11	6	B	Thatcher.....	15.1	123	31	60	No. 6	F., V.G.
				Fortune.....	42.1	121	38	37	3 Feed	V.G.
				Montcalm.....	49.4	119	37	46	1 Feed	G.
				Dakota.....	—	—	—	—	—	—
Dakota destroyed.										
DALE M. SCRIVENS, ROSETOWN										
2B.....	11	7	B	Thatcher.....	50.6	124	36	62	3 N.	V.G., I.
				Fortune.....	111.2	119	48	40	2 C.W.	—
				Montcalm.....	48.1	119	48	51	2 C.W. 6R	—
				Dakota.....	20.6	124	18	55	1 C.W.	—
Montcalm damaged by lodging and shattering.										
RALPH G. HURST, DODSLAND										
2D.....	11	9	B	Thatcher.....	43.2	98	—	64	1 N.	—
				Fortune.....	115.9	99	—	38	2 C.W.	—
				Montcalm.....	100.1	99	—	51	2 C.W. 6R	—
				Dakota.....	15.1	129	—	55	1 C.W.	—
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes										
2F.....	11	3	C	Arthur L. Clarkson, Madison.						

WHEAT POOL DISTRICT 12

Cereal Variety Zone	Dist.	Sub-Dist.	Test Designation	Varieties	Yield Bushels per Acre	Days Seeding to Ripening	Plant Height in Inches	Pounds per Measured Bushel	Commercial Grades	Grading Remarks
LORNE McCRIMMON, RUTHILDA										
2D.....	12	3	B	Thatcher.....	—	—	—	—	—	—
				Fortune.....	69.2	110	36	30	2 Feed	—
				Montcalm.....	48.2	110	36	44	2 Feed	—
				Dakota.....	10.8	122	24	54	2 C.W.	V.G.
Thatcher destroyed.										
ROY W. GREENWALD, TAKO										
2D.....	12	5	B	Thatcher.....	17.2	109	32	62	2 N.	S.G.
				Fortune.....	37.8	108	30	37	2 C.W.	—
				Montcalm.....	23.6	105	33	45	2 Feed	—
				Dakota.....	—	—	—	—	—	—
Dakota destroyed.										
W. LAWRENCE FEIL, CACTUS LAKE										
1A.....	12	6	B	Thatcher.....	41.3	99	32	63	2 N.	S.G.
				Fortune.....	104.6	96	33	38	1 C.W.	—
				Montcalm.....	74.4	89	34	49	2 C.W. 6R	—
				Dakota.....	15.2	130	21	55	1 C.W.	—
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes										
2D.....	12	1	B	Warren H. Drefs, Biggar.	—	—	—	—	—	—

WHEAT POOL DISTRICT 13

RAYMOND E. A. BRECHT, BAY TRAIL										
3C.....	13	1	C	Thatcher.....	33.8	109	36	61	2 N.	S.G.
				Fortune.....	66.0	109	38	36	1 Feed	G.
				Montcalm.....	48.8	108	36	45	2 Feed	—
				Dakota.....	2.9	119	26	56	1 C.W.	—
Dakota damaged by cutworms.										
ENAR FRANSON, COLONSAY										
2B.....	13	4	B	Thatcher.....	39.3	97	33	62	3 N.	I.
				Fortune.....	65.3	89	32	32	2 Feed	—
				Montcalm.....	63.2	95	33	46	3 C.W. 6R	—
				Dakota.....	8.6	110	16	56	1 C.W.	—

WHEAT POOL DISTRICT 14

HOWARD R. MILLIGAN, CARROT RIVER										
3F.....	14	11	C	Thatcher.....	9.6	—	30	61	No. 6	F.
				Fortune.....	22.8	—	42	40	3 C.W.	G.
				Montcalm.....	17.0	—	40	49	1 Feed	F.
				Dakota.....	2.1	—	18	52	3 C.W.	F.
Dakota damaged by frost.										
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes										
3B.....	14	2	B	Lorne A. Hufnagel, Silver Park.	—	—	—	—	—	—
3F.....	14	3	B	Donald W. Clark, Silver Park.	—	—	—	—	—	—
3B.....	14	4	C	Floyd G. Dahl, Dahnton.	—	—	—	—	—	—
3B.....	14	5	C	Norman Bernier, Perigord.	—	—	—	—	—	—

WHEAT POOL DISTRICT 15

RUEBEN R. PETERS, HEPBURN										
3G.....	15	4	B	Thatcher.....	49.2	109	40	64	1 N.	—
				Fortune.....	100.1	98	42	38	2 C.W.	S.G.
				Montcalm.....	81.7	96	40	51	2 C.W. 6R	W.
				Dakota.....	18.0	133	23	56	1 C.W.	—
CLIFTON A. BROWN, CANWOOD										
3B.....	15	7	B	Thatcher.....	10.6	111	38	62	2 N.	I.
				Fortune.....	24.8	105	39	40	2 C.W.	—
				Montcalm.....	43.7	92	41	52	2 C.W. 6R	—
				Dakota.....	2.6	126	27	51	3 C.W.	Dg.
DOREEN ANDERSON, NORTHSIDE										
3B.....	15	9	C	Thatcher.....	42.0	—	—	64	1 N.	—
				Fortune.....	—	—	—	—	—	—
				Montcalm.....	42.4	—	—	51	3 C.W. 6R	G.
				Dakota.....	8.6	—	—	54	1 C.W.	—
Fortune destroyed.										

WHEAT POOL DISTRICT 16

Cereal Variety Zone	Dist.	Sub-Dist.	Test Designation	Varieties	Yield Bushels per Acre	Days Seeding to Ripening	Plant Height in Inches	Pounds per Measured Bushel	Commercial Grades	Grading Remarks
DELBERT W. BRONSCH, RADISSON										
3G.....	16	1	C	Thatcher.....	21.6	114	12	63	1 N.	—
				Fortune.....	33.7	92	18	40	1 Feed	S.G.
				Montcalm.....	24.2	114	24	48	2 C.W. 6R	—
				Dakota.....	5.1	114	6	57	1 C.W.	—
KENNETH T. ANDERSON, LLOYDMINSTER										
3E.....	16	6	B	Thatcher.....	27.5	113	41	60	No. 6	G., I.
				Fortune.....	60.4	101	44	40	1 Feed	G.
				Montcalm.....	45.3	99	42	51	2 C.W. 6R	—
				Dakota.....	—	—	—	—	—	—
Dakota destroyed by frost.										
ROBERT CHALIFOUR, LEOVILLE										
4B.....	16	10	D	Thatcher.....	26.2	121	30	54	No. 5	—
				Fortune.....	94.8	118	30	37	1 Feed	G., M.
				Montcalm.....	61.6	118	30	44	2 Feed	—
				Dakota.....	—	—	—	—	—	—
Dakota yields discarded because of damage.										
KENNETH C. BACHMAN, COMPASS										
4B.....	16	11	C	Thatcher.....	57.8	110	44	63	2 N.	I.
				Fortune.....	123.0	105	45	42	1 C.W.	—
				Montcalm.....	84.7	102	40	51	2 C.W. 6R	—
				Dakota.....	14.1	126	22	53	3 C.W.	F., Dg.
Tests Discarded on Account of Damage by Drought, Pests, Hail or Other Causes										
3G.....	16	3	B	Mike H. Iwanchuk, Whitkow.						
3E.....	16	4	B	Donald J. Colliar, Meota.						

CONCLUSIONS

Despite unfavorable weather conditions which destroyed or damaged a large number of projects during the ripening period, the results of the 1951 tests provided a considerable amount of interesting and valuable information regarding a number of new grain varieties.

A backward spring, combined with cool, wet weather during the growing period resulted in slow development of field crops throughout Saskatchewan. Crop estimates toward the end of August forecast a record production for the province. Unfavorable weather during September and October curtailed harvesting with the result that an estimated twenty-five percent of the crop was still in the field when winter snows brought field operations to a standstill. Much of the grain which had been harvested was tough and damp. Severe weather had caused a loss in grades of grain swathed or standing in the field. The loss from shattering and lodging was heavy.

These conditions took their toll of variety tests as well as field crops. Because of continued wet weather test supervisors had difficulty in determining accurate dates of ripening of the different varieties. Shattering occurred in varying amounts as unfavorable conditions made it impossible to harvest the varieties as soon as they were ready. A number of tests had to be cut while still damp, and many were lodged so severely that harvesting was impractical.

Despite these difficulties, however, the number of tests satisfactorily completed was sufficient to provide accurate results from all areas of the province.

The results of the 1951 wheat tests show that Thatcher is still the most satisfactory wheat variety for general use in the province. Lee was tested for the second year, and the results with this variety to date indicate that it is not equal to Thatcher over most of the province. It should be stressed, however, that further tests will be necessary before definite recommendations can be made regarding Lee. It has the advantage of being more resistant to leaf rust than any of the varieties now in use in Saskatchewan.

Clinton oats was tested for the first time in 1951. This variety has the advantage of early maturity, but it yielded distinctly less than Fortune or Ajax throughout the open plains area.

The new barley variety, N x 1-11, originated at the University of Saskatchewan, gave excellent yield results in its first year of testing throughout the parkland zones. During a two year period of testing, Moore barley has not produced any outstanding results. Montcalm and Vantage have both given good results in the parkland zones and are recommended for use throughout most of the area.

For the second year in succession the crop comparison project has given disappointing results. Many of the tests were severely damaged during the past season as a result of unfavorable weather conditions at harvest time. In 1950 the tests were badly frozen. This project has provided valuable information in past years, however, regarding the values of the crops in different areas.

Over the years the Saskatchewan Wheat Pool variety testing project has provided valuable experimental data from many areas where no other testing projects have been conducted. This is made possible through the widespread distribution achieved each year in placing the three hundred odd tests throughout the province. This most important feature would not be possible if it were not for the whole-hearted support given to the variety testing program by the young farm people of Saskatchewan. To every Junior Co-operator who conducted a variety test in 1951 we wish to express our thanks.



Variety test supervisors Charles Deaver, Kenaston (left), and Dale Scrivens, Rosetown (right)

ACKNOWLEDGMENTS

The contribution rendered by Dr. J. B. Harrington in supervising the variety testing projects undertaken during 1951 and in previous years is sincerely acknowledged by the Saskatchewan Wheat Pool. We wish also to express our gratitude to the following who have given valuable assistance:

The officials of the Central Experimental Farm, Ottawa.

The officials of the Dominion Laboratory of Cereal Breeding, Winnipeg.

The officials of the Dominion Experimental Farm, Brandon.

The officials of the Dominion Experimental Farm, Indian Head.

The officials of the Dominion Experimental Station, Lethbridge.

The three hundred and twenty Junior Co-operators who made the project possible by supervising individual variety tests throughout the province.





Modern Press Limited, Saskatoon

